

# THIRD FIVE YEAR PLAN

## SUMMARY



GOVERNMENT OF INDIA  
PLANNING COMMISSION

*Explanatory Note*

The expressions 'lakh' and 'crore' signify 100,000 and 10,000,000 respectively.

*Price : Rs. 1·50 nP.*

# THIRD FIVE YEAR PLAN

## S U M M A R Y

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*This Summary outlines the principal proposals and programmes set out in the Report on the Third Five Year Plan. Within the compass of such a Summary, some measure of selection of the topics to be discussed is inevitable. For a fuller account readers are requested to refer to the main Report.* .



## INTRODUCTION

THIS REPORT sets out the objectives, policies and programmes of development for the Third Five Year Plan.

Two Five Year Plans have helped strengthen the foundations of economic and social life and stimulated industrial and economic growth and scientific and technological advance.

The Third Five Year Plan seeks to give a more precise content to the social objectives of the Constitution and represents a large advance towards their realisation. It takes account of the successes and the failures in the first two Plans and sets the tasks to be fulfilled in the perspective of development over the next fifteen years and more.

Work on the preparation of the Third Plan commenced towards the end of 1958 and was carried out in three main stages. The first, leading to the publication of the Draft Outline early in July, 1960, comprised detailed studies by working groups set up at the Centre and in the States. Parliament gave its general approval to the Draft Outline in August, 1960.

The Draft Outline was discussed throughout the country and served as the basis for the preparation of the plans of States. These were considered with the Chief Ministers of States between September and November, 1960. In January, 1961, the National Development Council made its recommendations concerning the overall size and the structure of the Third Plan; the Council also set up a Committee on Savings to suggest ways of securing the maximum mobilisation of resources for the Third Plan. Finally, on May 31 and June 1, 1961, the National Development Council considered the Draft Report on the Third Plan and generally approved it. •

The objectives and priorities of the Third Plan were considered carefully by five Parliamentary Committees in November, 1960, and every effort has been made in this Report to avail of the suggestions and comments offered by these Committees. Several aspects of the Plan were placed from time to time before the Committee of Members of Parliament from different political

(ii)

parties presided over by the Prime Minister. The Consultative Committee of Members of Parliament associated with the Planning Commission also reviewed the Plan at various stages.

Throughout the preparation of the Plan, leading public men and scholars, professional associations, organisations representing industry and labour, and independent experts generously gave of their time and experience. The Planning Commission had the benefit of advice and suggestions from its Panel of Economists, Panel of Scientists, and Panels on Land Reform, Agriculture, Education, Health and Housing. It was also helped by studies initiated by the Programme Evaluation Organisation, the Research Programmes Committee, the Committee on Plan Projects, the Central Statistical Organisation, the Indian Statistical Institute and other leading organisations engaged in research. Efforts to prepare plans at the district, block and village levels, specially for the development of agriculture, cooperation, education and rural industries, were an integral part of the process of drawing up the plans of States as well as the National Plan. These local plans are a vital element in the success of Panchayati Raj, which places in the hands of the people of each area the initiative and responsibility for their own development and the means and resources for rapid advance.

The preparation of the Third Plan has been, thus, a vast national undertaking in which valuable contributions have come from many sources, and at every stage there has been the closest collaboration with the State Governments and the Central Ministries.

The Third Plan represents the first phase in a scheme of long-term development extending over the next fifteen years or so, the preparation of which will now be taken in hand. In the course of this period, India's economy must not only expand rapidly but must, at the same time, become self-reliant and self-generating. This long-term approach is intended to provide a general design of development for the country's natural resources, agricultural and industrial advance, changes in the social structure and an integrated scheme of regional and national development.

The Plan sets large objectives and targets for the five-year period. They are large only in comparison with the past, not in

relation to needs or to the nation's capacity to achieve. They constitute a minimum which must be assured, but their true purpose is to open the way to a still more intensive endeavour and a deeper sense of urgency.

The size of the task and the many-sided challenge should not be under-estimated. The greatest stress in the Plan has to be on implementation, on speed and thoroughness in seeking practical results, and on creating conditions for the maximum production and employment and the development of human resources. Discipline and national unity are the very basis of social and economic progress and the achievement of socialism. At each step, the Third Plan will demand dedicated leadership at all levels, the highest standards of devotion and efficiency from the public services, widespread understanding and participation by the people, and willingness on their part to take their full share of responsibility and to bear larger burdens for the future.



## *CHAPTER 1*

### OBJECTIVES OF PLANNED DEVELOPMENT

#### I

#### INTRODUCTION

THE basic objective of India's development must necessarily be to provide the masses of the Indian people the opportunity to lead a good life. In the larger context of the world, the realisation of this objective for India, as for the other countries, is intimately tied up with, and dependent on, the maintenance of world peace. The existence of under-developed and poverty-stricken nations or peoples is itself an abiding danger to the maintenance of peace. It has been increasingly recognised that the welfare and peace of the world require the extermination of poverty and disease and ignorance from every country, so as to build up a liberated humanity.

2. To provide the good life to the 400 million people of India and more is a vast undertaking and the achievement of this goal is far off. But no lesser goal can be kept in view because each present step has to be conditioned by the final objective. The more immediate problem is to combat the curse of poverty with all the ills that it produces. This can only be done through social and economic advance, so as to build up a technologically mature society and a social order which offers equal opportunities to all citizens. The process involves far-reaching changes in social customs and institutions and replacement of the old traditional order by a dynamic society, and acceptance of the temper and application of science in modern technology. To some extent recognition of this twofold aspect of change has been present in the Indian mind for generations past. Gradually it has taken more concrete shape and has become the basis for planning.

3. From its earliest beginnings Indian nationalism had a large element of economic thinking and social reform. Freedom was considered the indispensable means to overcome mass poverty and to reconstruct the entire fabric of India's social and economic life. As the national movement grew and spread among the people of India, its social content became deeper. Under Gandhiji's leadership the national movement came to identify itself more and more with the service of the masses and, progressively, the social and economic aims of the struggle for freedom became more definite.

\ 4. In the Constitution the basic objectives are set forth in the Directive Principles of State Policy. Among these are :

“The State shall strive to promote the welfare of the people by securing and protecting, as effectively as it may, a social order in which justice, social, economic and political, shall inform all the institutions of national life.”

Further that—

“The State shall, in particular, direct its policy towards securing—

- (a) that the citizens, men and women equally, have the right to an adequate means of livelihood;
- (b) that the ownership and control of the material resources of the community are so distributed as best to subserve the common good;
- (c) that the operation of the economic system does not result in the concentration of wealth and means of production to the common detriment.”

These general principles were given a more precise direction in December, 1954, when Parliament adopted the Socialist Pattern of Society as the objective of social and economic policy. This concept, which embodies the values of socialism and democracy and the approach of planned development, involved no sudden change, and had its roots deep in India's struggle for freedom.

5. Ever since Independence, two main aims have guided India's planned development—to build up, by democratic means, a rapidly expanding and technologically progressive economy, and a social order based on justice and offering equal opportunity to every citizen. To change the traditional society into a dynamic one in a country with a vast population rooted in the past was a tremendous task. To do this through peaceful and democratic means and by the consent of the people, made this task even more difficult. It was inevitable that India should accept peaceful and democratic means as these have been the very methods which had been adopted in its struggle for freedom.

## II

### PLANNED DEVELOPMENT

6. When Independence came, India faced vast problems. Planning on a national scale, encompassing all aspects of economic and social life, was essential for rebuilding the rural economy, laying the foundations of industrial and economic progress and expanding educa-

tion and other services. Planned development was the means for securing with the utmost speed possible a high rate of growth, reconstructing the institutions of economic and social life, and harnessing the energies of the people to the tasks of national development.

7. In the pattern of development envisaged in the Five Year Plans the basic objective is to provide sound foundations for sustained economic growth, for increasing opportunities for gainful employment and improving living standards and working conditions for the masses. The first priority necessarily belongs to agriculture, and agricultural production has to be increased to the highest levels feasible. The growth of agriculture and the development of human resources alike hinge on the advance made by industry. Not only does industry provide the new tools, but it begins to change the mental outlook of the peasant. Agriculture and industry are, therefore, to be regarded as integral parts of the same process of development and, through planned development, the growth of industry has to be speeded up and economic progress accelerated. In particular, heavy industries and machine-making industries have to be developed, the public sector expanded and a large and growing cooperative sector built up. The public sector is expected to provide specially for the further development of industries of basic and strategic importance or in the nature of public utility services, other industries too being taken up by Government to the extent necessary. State trading has also to be undertaken on an increasing scale according to the needs of the economy. Thus, while making full use of all available agencies, the public sector is expected to grow both absolutely and in comparison and at a faster rate than the private sector.

8. With the rapid expansion of the economy, wider opportunities of growth arise both for the public and the private sectors, and in many ways their activities are complementary. The private sector includes not only organised industry but agriculture, small industry, trade and a great deal of activity in housing and construction and other fields. Progressively, it has to take the form of cooperative effort. In the context of the country's planned development, the private sector has a large area in which to develop and expand, functioning always within the framework of national planning and with an understanding of obligations towards the community as a whole. It is essential, of course, to ensure that the opportunities available in the private sector do not lead to the concentration of economic power in the hands of small numbers of individuals and businesses and that disparities in income and wealth are progressively reduced.

9. Within the scheme of development, cooperation is expected to become progressively the principal basis of organisation in several branches of economic life, notably in agriculture, small industry, distribution, construction and provision of essential amenities for local communities. Village and small industries have a crucial role in the development of the national economy, for, besides providing consumer and other goods and large-scale employment, they offer a method of ensuring a more equitable distribution of the national income and the means for the utilisation of available resources in skill and manpower. Disparities in levels of development in different regions have to be steadily reduced, and the benefits of industrialisation spread evenly between different parts of the country. In the early phases of development these aims are by no means easy to realise, and economic and social considerations have to be balanced. However, as the economy grows, it becomes possible to provide for more intensive development in the less developed areas.

10. In undertaking planned development and seeking to achieve both rapid growth and the socialist pattern of society, the basic criterion is the interest of the community as a whole, and especially of its weaker sections. However, through its very success and dynamism, a rapidly developing economy throws up new problems of organisation and management as well as of social policy. The existing social and economic institutions have, therefore, to be appraised from time to time in relation to their role in the nation's development.

### III

#### PROGRESS TOWARDS SOCIALISM

11. It is a basic premise in India's Five Year Plans that, through democracy and widespread public participation, development along socialist lines will secure rapid economic growth and expansion of employment as well as equitable distribution, reduction of disparities in income and wealth, prevention of concentration of economic power, and creation of the values and attitudes of a free and equal society. These are vital objectives. Economic activity must, therefore, be so organised that the tests of production and growth and those of equitable distribution are equally met. Progress towards socialism lies along a number of directions, each of which enhances the value of the others.

Firstly a socialist economy must be efficient, progressive in its approach to science and technology, and capable of growing steadily to a level at which the well-being of the mass of the population can be secured. In under-developed countries, a high rate of economic



progress and the development of a large public sector and a cooperative sector are among the principal means for effecting the transition towards socialism.

Secondly, a socialist economy should ensure equal opportunity to every citizen. As a first step, it should provide for the basic necessities, in particular, for food, work, opportunity for education, reasonable conditions of health and sanitation, improvement in conditions of housing, and a minimum level of income which, in the given circumstances, will ensure tolerable living standards.

Thirdly, through the public policies it pursues, a socialist economy must not only reduce economic and social disparities which already exist, but must also ensure that rapid expansion of the economy is achieved without concentration of economic power and growth of monopoly.

Finally, the greatest stress should be placed on social values and incentives and on developing a sense of common interest and obligations among all sections of the community. The aim of public policy is to help build up a society which is fundamentally integrated from within and derives its strength from common values and a sense of shared citizenship.

#### IV

##### EQUAL OPPORTUNITIES

12. The first condition for securing equality of opportunity and achieving a national minimum is assurance of gainful employment for every one who seeks work. Owing to deficiencies in the economic structure, considerable strengthening of the industrial base and development of education and other social services is necessary before the economy can provide an adequate level of remuneration to the entire labour force. These processes take time. It is, therefore, envisaged that for a period, in addition to the programmes for the development of large and small industries, agriculture and economic and social services, large-scale rural works programmes should provide additional opportunities for work for the lowest income groups. In advanced countries the development of education and other social services has played a large part in ensuring greater equality of opportunity to different sections of the population and greater social mobility. Social services have also helped to bring about a measure of redistribution of income and provide the basic necessities. In India, too, the expansion of social services will exert a similar influence, specially through the extension of free and universal education

at the primary level, provision of larger opportunities for vocational and higher education, grants for scholarships and other forms of aid, and improvements in conditions of health, sanitation, water supply and housing. Programmes for the welfare of scheduled tribes and castes and other welfare services are vital ingredients in the scheme of economic development. As economic development proceeds, social security and insurance will also come to have high priority. The first important steps in this direction have already been taken.

13. Economic development and social services gain greater significance as means towards creating equality of opportunity in the measure in which efforts are made to develop socialism at the level of the community. In the rural areas, the community development movement has a most important role. One of its major aims is to create conditions for the growth of a progressive cooperative rural economy with a diversified occupational structure in which the weaker sections of the community are brought to the level of the rest. This process will be stimulated by the development of the institutions of Panchayati Raj at the village, block and district levels. These constitute a revolutionary change in the structure of district administration and in the pattern of rural development. In the urban areas also, appropriate social policies are required, for instance, careful planning of the use of land, large-scale programmes for land acquisition, policies designed to assist the lower income groups and the poorer sections of the population, adequate taxation of capital gains and urban properties, avoidance of conspicuous and wasteful forms of construction, and public vigilance over conditions of tenancy and rents.

## V

### DISTRIBUTION OF ECONOMIC POWER AND INCOME DISPARITIES

14. Excessive economic power in relatively few hands, and the uses to which it may be put, disturb the balance of power in a democracy, expose the social structure to new strains and tensions, and come in the way of diffusion of economic opportunities. Yet, for various economic and technological reasons, the process of rapid economic development tends to enlarge opportunities for well-established firms to expand their size and enter new fields of enterprise. The object of policy, therefore, has to be both to prevent concentration of economic power and the growth of monopolistic tendencies and to promote a pattern of industrial organisation which will lead to high levels of productivity and give full scope, within the framework of national planning, to new entrepreneurs, to medium and small-scale enterprises and to cooperative organisations. The greatest importance,

therefore, attaches to the administrative methods and practices and the instruments through which these aims are to be realised. Broadly, there has to be a threefold approach—extension of the public sector, widening opportunities for new entrants and for medium and small-sized units as well as for industries organised on cooperative lines, and effective exercise of Government's powers of control and regulation and the use of appropriate fiscal measures. Means for ensuring broad-based ownership in industry, diffusion of enterprise and liberal facilities for new entrants and the growth of cooperative organisations are already available to a large extent. However, they need to be employed more purposefully and with greater coordination than in the past, for instance, in implementing such policies as licensing, financial aid to industry, development of industrial estates, rural electrification and regional planning, taxation of wealth and capital gains, and legislation for the regulation and management of companies. In these and other respects, the existing procedures have to be re-examined in relation to the tasks and priorities of the Third Plan.

15. While changes in the agrarian structure must be hastened, disparities in income and wealth arising from industrial and economic growth raise complex problems. For a variety of reasons, unless special measures are taken, in the first phases of economic development in under-developed countries, there is a tendency for differences in the levels of income to become even larger than before. The essential problem here is to reduce the spread between the higher and the lower incomes and to raise the level of the minimum. A number of different policies have to be followed, such as large-scale programmes of training, measures to ensure that there is rapid growth of opportunities for merit, both in the public and in the private sectors, and taxation policies designed to bring the net earnings of those in the higher income brackets to reasonable levels. A reasonable range of incomes to be realised progressively over the next two or three Plan periods would be, as suggested by the Taxation Enquiry Commission, about thirty times the average family income. Although, in view of the low incomes of the bulk of the population, this range represents a considerable disparity, it could be further reduced as lower incomes rise.

16. An important aspect of the problem of income disparities concerns the gap between rural and non-rural incomes, which tends to widen under the impact of industrial and economic development. This aim has to be attained through increase in agricultural productivity, development of social services, reduction in the dependence on land and diversification of the economic structure of rural areas

through the extension of industry, and an agricultural price policy which fully safeguards the farmer's interest and is fair to the urban consumer.

17. In a growing economy, frequently, high incomes are due to the accrual of capital gains, to trading and speculative profits and to perquisites of one kind or another which are permitted by law. Through appropriate social policies, incomes arising from capital gains, speculation, etc., must be limited, and the State should take its due share. Secondly, through extension and improvement in the tax system, steps must be taken to ensure that such incomes as do accrue are fully taxed, evasion of taxation is severely dealt with and opportunities for tax avoidance are reduced to the minimum. It is also of the highest importance that from the point of view, in particular, of receivers of fixed incomes, falling broadly in the lower middle income class groups, prices of essential commodities are kept down and social services, specially education, health and housing are brought within their easy reach. A group to which the greatest attention must be given are the totally unemployed and those suffering from serious under-employment. The provision of employment opportunities has the foremost priority for them. Along with employment, education and social service benefits should also be extended as fully as possible.

## VI

### ECONOMIC AND SOCIAL INTEGRATION

18. Realisation of the socialist pattern of society is necessarily a cumulative process resulting from progress along many different paths. In reaching this goal, there is need now for a sense of urgency and quickening of pace, for any lag between economic and social development creates new stresses. Precise data are at present lacking, and without these it is difficult to devise definite measures. An expert committee set up by the Planning Commission is engaged in reviewing changes in the levels of living which have occurred in the course of the First and the Second Plan, in studying recent trends in the distribution of income and wealth and, in particular, in ascertaining the extent to which the operation of the economic system may have resulted in concentration of wealth and of means of production.

19. Although many gaps remain, step by step, within the scheme of planned development, the framework of socialism is being built up, but it has to be strengthened and made more purposeful in its actual working. There must be fuller and more determined implementation of accepted policies and programmes in all spheres of public adminis-

tration and economic life, and more critical tests of evaluation must be adopted. Moreover, at all times there should be due stress on the moral, human and spiritual values which give meaning to economic progress. Given the necessary unity and discipline in the nation, willingness to bear the burdens of development and greater understanding by different sections of the community of what is due from them at the present juncture, both economic and social advance can be far more rapid than is generally realised. Policies already initiated will go a long way to stimulate social mobility, strengthen such forces as the trade unions, the cooperative movement, voluntary organisations and the universities, and create a broad-based constructive leadership in rural and urban communities. They will help to check concentration of economic power and the growth of monopoly, strengthen the bonds of cultural and economic integration, and assure to every citizen of India the right to work, to equal opportunity and to a minimum level of living. In the last analysis, economic development is but a means to an end—the building up, through effort and sacrifice widely shared, of a society without caste, class or privilege, which offers to every section of the community and to all parts of the country the fullest opportunity to grow and to contribute to the national well-being.

20. Planning is a continuous movement towards desired goals and, because of this, all major decisions have to be made by agencies informed of these goals and the social purpose behind them. Even in considering a five-year period, forward and long-term planning has always to be kept in view. Indeed, perspective planning is the essence of the planning process. As this process develops, there is a certain rhythm of expansion in the development of the people, and a sense of enterprise and achievement comes to them. They are conscious of a purpose in life and have a feeling of being participants in the making of history. Ultimately, it is the development of the human being and the human personality that counts. Planning involves material investment; even more important is the investment in man. The people of India today, with all their burdens and problems, live on the frontier of a new world which they are helping to build. In order to cross this frontier they have to possess courage and enterprise, the spirit of endurance and capacity for hard work, and the vision of the future.

## CHAPTER 2

### LONG-TERM ECONOMIC DEVELOPMENT

#### NEED FOR A PERSPECTIVE

FOR several decades, the Indian economy was almost stagnant, developing at a rate barely exceeding the growth of population. Over the past decade it has advanced at an average rate of about 4 per cent per annum, the increase in aggregate national income being about 42 per cent and in per capita only 18 per cent. Experience of the last ten years has made it clear that to make a significant impact on the level of living of the bulk of the people, the rate of economic development should be substantially stepped up, and special efforts should be made to reduce the rate at which population is increasing. Basically, the task is one of developing the natural and human resources of the country through the widest possible use of knowledge and technology, and improved organisation within the framework of a well-conceived long-term plan.

2. The process of development is a continuous one in which the priorities and objectives for each period are linked with a larger perspective. The real significance of the long-term perspective lies in its value for current decisions which, in the absence of such a view, might be wrong and costly and might call for extensive corrections subsequently. A long-term plan when worked out in sufficient detail seeks to bring out the interdependence between the different sectors of the economy and assists in a clearer understanding of possible obstacles to the growth of the economy. By analysing problems of demand and supply arising from the growth of national output and the realisation of stated social objectives, it helps in taking consistent and timely decisions regarding the optimum uses of resources, the economies of scale and location, and regional distribution of economic activities. This last is particularly important because certain problems involving conflicts of a regional character in a large and diverse country like India can only be resolved in terms of a long-term plan which fits different regions into a larger design of national development. In particular, there is need for advance planning in specific terms for the industrial sector, including power, transport, scientific research and technical education. While a long-term view of development is a useful guide in framing policies and programmes and assessing progress,

it has itself to be reassessed from time to time in the light of actual achievement and experience.

3. The First Plan gave a simple projection of economic growth over a period of 30 years from 1951 to 1981. The projections and assumptions of the First Plan were reviewed in the Second Plan in relation to the performance of the economy and it was suggested that, compared to 1950-51, the national income might be doubled by 1967-68 and per capita income by 1973-74. Having regard to the increase in population and the likely trends, even with a sustained rate of growth in national income of around 6 per cent per annum, it would be difficult to fulfil the intention expressed in the Second Plan of doubling the 1950-51 level of income per head by the middle of the Fifth Plan. On the basis of the present tentative estimates for 1971 and 1976, over the period 1961—76, the total increase in population may be of the order of 187 million. Corresponding to the growth of population, it is estimated that the increase in the labour force over this period may be about 70 million. In view of the growth of population and the urgency of tackling the problem of unemployment and low productivity, it is essential that the expansion of the economy should be accelerated to the utmost extent feasible.

#### APPROACH TO LONG-TERM DEVELOPMENT

4. Over the next three Plan periods it is imperative that all the possibilities of economic growth should be fully and effectively mobilised. For this purpose it is essential to proceed on the basis of a broad strategy of economic development which would ensure that the economy expands rapidly and becomes self-reliant and self-generating within the shortest possible period. The strategy visualised for the Third and later Plans emphasises the interdependence of agriculture and industry, of economic and social development, of national and regional development, and of the mobilisation of domestic and external resources.

5. *Agriculture and the rural economy.*—Development of agriculture, based on the utilisation of manpower resources of the countryside and the maximum use of local resources, holds a key to the rapid development of the country. Given adequate irrigation, supplies of fertilisers, improved seeds and implements, education of the farmers in using better methods, and reform of land tenures and development of the agricultural economy along cooperative lines, large increases in levels of production can be achieved over relatively short periods. Over the period, the aims to be achieved are the development of a

diversified and efficient system of agriculture, including animal husbandry, dairying, production of meat, fish, poultry, etc., provision of a balanced and adequate diet for the entire population, and the development of commercial crops to meet the increasing requirements of industry and for exports.

6. *Basic and heavy industries.*—Because of her natural resources, India has considerable potential for industrial growth. Her potential capacity to produce steel, electricity, fuel and other basic materials relatively cheaply and the large and growing domestic market place her in a favourable position to produce machinery and a large range of engineering, chemical and electrical goods needed for development. In turn, these will stimulate the growth of medium and small industries and expand employment both in urban and in rural areas. Thus, it will be possible to build up an integrated industrial structure and expand industrial production efficiently along the lines of real comparative advantage. In view of the small size of the capital and intermediate goods industry, special emphasis has to be placed on industries such as steel, coal, oil, electric power, machine-building and chemicals. Development of these industries is an essential condition of self-reliant and self-sustained growth.

7. *Human resources and productivity.*—An essential aspect of long-term planning is that effective and speedy means should be devised for lifting the level of productivity for the nation as a whole by large expansion of facilities for general and technical education and the development of social services. The programme of expansion of trained personnel in its widest sense has necessarily to be undertaken long in advance of requirements. It is equally important that the available manpower should be used as fully and effectively as possible.

8. *Population.*—The objective of stabilising the growth of population over a reasonable period must be at the very centre of planned development. The programme of family planning, involving intensive education, provision of facilities and advice on the largest scale possible and widespread popular effort in every rural and urban community has, therefore, the greatest significance.

9. *Resources for development.*—Among the principal conditions for building up a self-reliant economy, which can sustain a high rate of growth, are an adequate level of domestic capital formation, the maximum effort possible in developing exports, the availability of external assistance during the critical period of transition. A basic objective in the strategy of development is to create the conditions in which dependence on external assistance will disappear as early as may be possible.



## OUTLOOK FOR 1961—76

10. Taking a broad view of the development of the Indian economy, it is reckoned that, at 1960-61 prices, the national income should rise from about Rs. 14,500 crores at the end of the Second Plan to about Rs. 19,000 crores at the end of the Third Plan, about Rs. 25,000 crores at the end of the Fourth and about Rs. 33,000 to Rs. 34,000 crores at the end of the Fifth Plan. Allowing for the estimated annual increase in population of about 2 per cent, on these estimates, income per head should go up from around Rs. 330 at the end of 1960-61 to about Rs. 385, Rs. 450 and Rs. 530 in 1966, 1971 and 1976. This will require net investment as a proportion of national income to rise from about 11 per cent at present to 14-15, 17-18 and 19-20 per cent per annum by the end of the Third, Fourth and Fifth Plans. In other words, as compared to about Rs. 10,500 crores postulated for the Third Plan, net investment over the Fourth and the Fifth Plan periods should be of the order of Rs. 17,000 crores and Rs. 25,000 crores. Domestic savings would have to rise in corresponding measure from about 8·5 per cent at present to about 11·5, 15 to 16, and 18 to 19 per cent of the national income at the end of the Third, Fourth and Fifth Plans. By the end of the Fifth Plan the economy should become strong enough to develop at a satisfactory pace without being dependent on external assistance outside of the normal inflow of foreign capital.

11. As stated earlier, a considerable part of the practical interest of long-term plans lies in the guidance they provide for current action and decisions and in the forward planning which they facilitate. These considerations are of special importance in the basic industries. In these, the technical and other problems involved in coordinated development, implications in terms of physical resources and foreign exchange, and questions relating to the location of economic activities call for prolonged study and preparation. In the course of preliminary studies on the Third Plan the following tentative targets of capacity have been suggested for some important items for 1970-71 :

steel ingots .. .. .	million tons	18—19
pig iron .. .. .	million tons	3—4
aluminium .. .. .	thousand tons	230—250
electric power .. .. .	million kW	21—23
coal .. .. .	million tons	170—180
oil refining .. .. .	million tons	18—20
nitrogenous fertilisers .. .. .	million tons(N)	2·0—2·2
cement .. .. .	million tons	24—26
machine building .. .. .	Rs. crores of output	1600
railway freight transport—long distance (originating traffic)	million tons	380—420
foodgrains .. .. .	million tons	125
exports .. .. .	Rs. crores	1300—1400

These targets indicate the order of effort called for and could form a useful basis for further studies at the technical level.

#### PREPARATION OF A LONG-TERM DEVELOPMENT PLAN

12. The quality of the statistical and technical information available plays an important role in the formulation of a long-term plan. Accordingly, in the Third Plan, special steps are being taken to improve the available statistical and technical data. These will be specially required for analysing the complex relationships and correct proportions between different branches of the developing economy. In each stage of development the whole programme has to be viewed as a continuous physical process. A considerable amount of economic, technical and statistical analysis has to be undertaken. This would include estimation of the demand for goods and services by consumers at the end of each period, studies of inter-industry relations with a view to ascertaining the demand for intermediate goods, raw materials and technical personnel, and determination of investment requirements as well as possibilities of import saving and the development of exports.

13. A long-term plan of development embodying specific programmes and policies should be conceived not merely in broad national terms, but should take into account the possibilities of development of resources in different regions of the country so as to spread the benefits of development as widely as possible without slowing down growth itself. The long-term plan should, therefore, supply a general pattern of economic and social development which would take into consideration the needs and possibilities of different areas and harmonise these into an integrated endeavour for national advancement.

14. For working out a long-term plan on these lines, there is need for close and continuous collaboration between various Government agencies at the Centre and in the States and with leading institutions engaged in scientific, economic and social research. The outline of the long-term plan will be filled in as more data and knowledge become available, and the plan itself will be adjusted from time to time, in keeping with technological developments, greater knowledge of resources and the progress achieved in different branches of the economy. Work along these lines has already been initiated in the Planning Commission as well as by independent research institutions, and in the course of the next three years it is proposed to devote substantial resources for the preparation of an overall plan of development covering the period up to the end of the Fifth Plan.

## CHAPTER 3

### APPROACH TO THE THIRD PLAN

THE approach to the Third Plan takes account of the progress of the economy in recent years, the current economic and social situation, and the country's basic social objectives and the perspective of long-term growth described in the preceding Chapters.

2. During the past decade there has been fairly rapid expansion of India's economy, the outlines of the country's future social and economic structure have been established, and foundations have been laid for the achievement of long-term social and economic goals. The total investment, public and private, increased from over Rs. 500 crores per annum at the beginning of the First Plan to about Rs. 1600 crores at the end of the Second Plan. Investment by public authorities rose during this period from Rs. 200 crores to Rs. 600 crores per annum. Reckoned at current prices, investment during the First and Second Plans amounted to Rs. 10,110 crores, Rs. 5210 crores being in the public sector and Rs. 4900 crores in the private sector. During the First Plan, owing largely to the progress recorded in agricultural production, national income increased by 18 per cent as against the original target of 12 per cent. In the Second Plan, the increase in national income was 20 per cent as against the initial target of 25 per cent. Over the decade agricultural production expanded by about 40 per cent and the output of foodgrains by 46 per cent. The net output of organised manufacturing industries increased nearly twofold. A general view of the growth of the economy over the last decade may be obtained from the selected indicators of growth given in the Table below :

item	unit	1950-51	1955-56	1960-61	percentage increase in 1960-61 over 1950-51
national income at 1960-61 prices	Rs. crores	10240	12130	14500	42
per capita income at 1960-61 prices	Rs.	284	306	330	16
index of agricultural production	1949-50=100	96	117	135	41
foodgrain production	million tons	52.2*	65.8*	76.0	46
nitrogenous fertilisers consumed	000 tons of N	55	105	230	318

\*Estimates of production adjusted for changes in statistical coverage and methods of estimation up to 1956-57.

item	unit	1950-51	1955-56	1960-61	percentage increase in 1960-61 over 1950-51
area irrigated (net total)	million acres	51.5	56.2	70.0	36
cooperative movement :					
advances to farmers	Rs. crores	22.9	49.6	200.0	773
index of industrial pro- duction	1950-51=100	100	139	194	94
production of :					
steel ingots	million tons	1.4	1.7	3.5	150
aluminium	000 tons	3.7	7.3	18.5	400
machine tools (graded)	value in Rs. crores	0.34	0.78	5.5	1518
sulphuric acid	000 tons	99	164	363	267
petroleum products	million tons	—	3.6	5.7	—
cloth—mill-made	million yards	3720	5102	5127	38
khadi, handloom and powerloom	million yards	897	1773	2349	162
total	million yards	4617	6875	7476	62
power : installed capacity	million kW	2.3*	3.4*	5.7	148
railways : freight carried	million tons	91.5	114.0	154.0	68
roads : surfaced including national highways	000 miles	97.5	122.0	144.0	48
general education :					
students in schools	million numbers	23.5	31.3	43.5	85
technical education :					
engineering & techno- logy—degree level intake	000 numbers	4.1	5.9	13.9	239
health :					
hospital beds	000 numbers	113	125	186	65

3. The record of growth over the last ten years has not been uniform. There have been ups and downs—occasionally due to natural causes or international developments, and in some cases due to deficiencies in implementation. The growth of population accentuated the problem of unemployment. Additional employment opportunities created during the Second Plan are estimated at about 8 million, of which 6.5 million were outside agriculture. At the end of the Second Plan there was a backlog of unemployment amounting to 9 million. While considerable progress has been made in every branch of national life, inevitably there have been, at the same time, stresses and strains. Despite failures and errors that might have been avoided and weaknesses in the economic and social structure that still persist, in every direction new ground has been broken and valuable experience has been gained.

\*Figures relate to calendar years 1950 and 1955.

4. In drawing up the Third Plan the principal aims have been the following :

- (1) to secure an increase in national income of over 5 per cent per annum, the pattern of investment being designed also to sustain this rate of growth during subsequent plan periods;
- (2) to achieve self-sufficiency in foodgrains, and increase agricultural production to meet the requirements of industry and exports;
- (3) to expand basic industries like steel, chemical industries, fuel and power and establish machine-building capacity, so that the requirements of further industrialisation can be met within a period of ten years or so mainly from the country's own resources;
- (4) to utilise to the fullest extent possible the manpower resources of the country and to ensure a substantial expansion in employment opportunities; and
- (5) to establish progressively greater equality of opportunity and to bring about reduction in disparities in income and wealth and a more even distribution of economic power.

5. The period of the Third Plan represents the first stage of a decade or more of intensive development leading to a self-reliant and self-generating economy. While India's economy is now much larger in size and in the range of its operations, it has to meet large and growing demands, and considerable investments have to be made in projects whose output will be available only in the course of the Fourth Plan. The Third Plan will, therefore, call for the maximum rate of investment that can be achieved.

6. The general pattern of development in the Third Plan necessarily flows in large part from the basic approach and experience of the Second Plan. However, in some important respects it represents a wider view of the problems of development and calls both for more intensive effort and a greater sense of urgency. In particular, the Third Plan will be directed towards strengthening the agricultural economy, developing industry, power and transport and hastening the process of industrial and technological change, achieving marked progress towards equality of opportunity and the socialist pattern of society, and providing employment for the entire addition to the labour force. A plan of development with these aims will make far-reaching demands on the nation. It is essential that the burdens of

development during the Third Plan should be equitably distributed and, at each stage, the economic, fiscal and other policies adopted should bring about improvements in the welfare and living standards of the bulk of the people.

7. In the scheme of development during the Third Plan, agriculture has the first priority. Agricultural production has to be increased to the largest extent feasible, and adequate resources have to be provided under the Plan for realising the agricultural targets. The rural economy has to be diversified and the proportion of the population dependent on agriculture gradually diminished. In the development of agriculture and the rural economy during the Third Plan, the guiding consideration is that whatever is physically practicable should be made financially possible, and the potential of each area be developed to the utmost extent. One of the main aims of the Third Plan is to harness the manpower resources available in rural areas. This is to be achieved through programmes of development for which the Plan provides, supplemented by extensive rural works programmes for utilising manpower resources, specially for increasing agricultural production. Responsibility and initiative in the development of rural areas will rest increasingly with Village Panchayats, Panchayat Samitis and Zila Parishads. Service cooperatives are to be organised on the basis of the village community as the primary unit. Cooperative farming, which is vital for rural progress, is essentially a logical growth of cooperation and the approach of community development at the village level.

8. In the Third Plan, as in the Second, the development of basic industries such as steel, fuel and power and machine-building and chemical industries is fundamental to rapid economic growth. Programmes for industrial development have been drawn up from the point of view of the needs and priorities of the economy as a whole, the public and the private sectors being considered together. While the private sector will have a large contribution to make, the role of the public sector in the development of the economy will become even more dominant. The Third Plan will carry further the present efforts to build up small industries as a vital segment in the industrial structure by promoting greater integration between large-scale and small-scale industries, spreading the benefits of industrialisation to small towns and rural areas, and introducing improved techniques in the traditional rural industries.

9. Considerable emphasis has been given in the Third Plan to the development of education and other social services. They are essential for ensuring a fair balance between economic and social

development and, equally, for realising the economic aims of the Plan. Large technological changes and increase in productivity cannot be achieved without greatly strengthening the educational base of the community and improving living conditions.

10. A twofold approach has to be adopted towards the problem of unemployment. Development programmes included in the Plan have to be worked so as to yield the maximum employment of which they are capable. They have to be implemented in an integrated manner and adapted to the actual requirements of each area. In many fields, where manpower can be used more intensively, development programmes under the Plan can be speeded up and enlarged to the extent necessary in the later stages of the Plan. Action along these lines will be specially required in areas with heavy pressure of population in which there is considerable unemployment. It is reckoned that development programmes in the Plan may provide additional employment to the extent of about 14 million jobs as against increase in the labour force during the Third Plan of about 17 million. The balance is proposed to be taken care of through large-scale rural works programmes, village and small industries and other means.

11. For achieving a cumulative rate of growth of over 5 per cent per annum it will be necessary to undertake net investment to the extent of more than 14 per cent of the national income compared to the present level of about 11.5 per cent. This involves raising the rate of domestic savings from about 8.5 per cent at present to about 11.5 per cent by the end of the Third Plan. Domestic resources will need to be supplemented in substantial measure by external assistance. Dependence at this stage of development on external resources serves to emphasise the importance of policies and measures for import substitution and for increasing export earnings during the Third Plan.

12. In the scheme of production for the Third Plan care has to be taken to provide for adequate supplies of foodgrains and other consumer goods. Nevertheless, it is inevitable that from time to time inflationary pressures may emerge. The Plan postulates a price policy which will ensure that movements of relative prices are in keeping with its priorities and targets and that prices of essential goods which enter into the consumption of low income groups do not rise unduly. It will also be essential to restrain the consumption of relatively non-essential goods and services. Along with this, in planning the pattern of production, care must be taken to avoid the use of the limited resources available in the production of relatively non-essential goods and services. These measures are important not only for securing

rapid development under conditions of economic stability, but are also necessary for the mobilisation of the domestic resources and the foreign exchange needed for the successful implementation of the Third Plan.

13. In the Third Plan stress is being placed on the careful phasing of projects in relation to one another. There should be continuity both in planning and in the flow of benefits, and some measure of balance must be preserved between projects with long gestation periods and those which can be completed over relatively short periods. In the related sectors of industry, transport and power, close coordination in planning and execution is essential not only for new projects but, equally, for achieving rising levels of production from the existing plants. The programme of industry, including power, transport, scientific research and technical education is conceived of as a continuous and integrated whole. Every effort has, therefore, to be made to initiate and complete within the shortest possible time the schemes which will help to raise the potential for growth within the economy.

14. In the Third Plan, as in the Second, the plans of States have great importance for the rapid development of the national economy. Important national objectives, as in agriculture, education and other social services and the utilisation of rural manpower, can only be realised in the measure in which the plans of States are carried out successfully. With the development of large-scale industries, specially of basic and heavy industries, State plans have to provide on a large scale for the development of power and technical education, for schemes of housing and urban development, and for measures to achieve closer integration of the rural with the industrial economy. In formulating the plans of States and determining their size and pattern, to the extent possible, these considerations have been kept in view.

15. To a greater extent than in the past, during the Third Plan, the direction and management of the Indian economy will call for improved methods and machinery for planning and execution, better statistical and economic intelligence, greater appreciation of technological and other developments occurring in different fields, fuller knowledge of the country's potential resources and, generally, for more systematic analysis and research.

16. In the course of the Third Plan the nation sets out to achieve as much in five years as has been realised in the ten years of the First and Second Plans. The task is large in magnitude, urgent, and of great significance for the present and the future. Its administrative



implications are vast and call for the highest standards of efficiency attainable in every field of activity. Effective implementation requires the maximum mobilisation of resources, adaptation to changing needs, coordination and concentration of resources at every vital point, ability to anticipate difficulties and problems, readiness to seize upon favourable opportunities for growth and, above all, men of skill and knowledge and organisations attuned to the objectives of the Plan. A plan of development, however elaborate or precise, is at best a framework which sets broad patterns for action. Its success rests on a variety of factors—on widespread understanding of the challenge and the burdens of development, on the release of new productive forces and increasing application of modern science and technology, on changes in outlook and motivation and, finally, on a climate of confidence that rapid economic development is the means both to social justice and to wider economic opportunity.

## CHAPTER 4

### TARGETS AND OUTLAYS IN THE PLAN

To achieve the aims set out in the preceding Chapter, it is essential that a certain minimum development should take place in different sectors of the economy during the next five years. The physical targets of the Third Plan have been formulated on the basis of these minimum needs. It is estimated that national income will go up at least by 30 per cent and per capita income by 17 per cent over the next five years. A few selected targets are included in the Table below with the object of giving a synoptic view of the Plan :

#### Selected targets

item	unit	1960-61	1965-66	percentage increase in 1965-66 over 1960-61
index number of agricultural production . . . . .	1949-50=100	135	176	30
foodgrain production . . . . .	million tons	76	100	32
nitrogenous fertilisers consumed area irrigated (net total)* . . . . .	000 tons of N million acres	230 70	1000 90	335 29
cooperative movement : advances to farmers . . . . .	Rs. crores	200	530	165
index number of industrial production . . . . .	1950-51=100	194	329	70
production of :				
steel ingots . . . . .	million tons	3.5	9.2	163
aluminium . . . . .	000 tons	18.5	80	332
machine tools (graded) . . . . .	value in Rs. crores	5.5	30.0	445
sulphuric acid . . . . .	000 tons	363	1500	313
petroleum products . . . . .	million tons	5.7	9.9	70
cloth :				
mill made . . . . .	million yards	5127	5800	13
handloom, powerloom and khadi . . . . .	million yards	2349	3500	49
total . . . . .	million yards	7476	9300	24
minerals :				
iron ore . . . . .	million tons	10.7	30.0	180
coal . . . . .	million tons	54.6	97.0	76
exports . . . . .	Rs. crores	645	850	32
power :				
installed capacity . . . . .	million kW	5.7	12.7	123
railways :				
freight carried . . . . .	million tons	154	245	59

item	unit	1960-61	1965-66	percentage increase in 1965-66 over 1960-61
road transport:				
commercial vehicles on road	000 numbers	210	365	74
shipping : tonnage . . . .	lakh GRT	9.0	10.9	21
general education :				
students in schools . . . .	million numbers	43.5	63.9	47
technical education :				
engineering and technology— degree level intake . . . .	000 numbers	13.9	19.1	37
health :				
hospital beds . . . . .	000 numbers	186	240	29
doctors practising . . . .	000 numbers	70	81	16
consumption levels :				
food . . . . .	calories per capita per day	2100	2300	10
cloth . . . . .	yards per capita per annum	15.5	17.2	11

Annexure I at the end of this Summary sets out the targets of development in the Third Plan at greater length.

2. Increase in population, the growing expectations of the people and the urgent need for attaining the stage of self-sustained growth over the next two or three Plan periods make it essential that there should be every possible effort to achieve these targets during the next five years. In addition, certain measures must be taken during the Third Plan period itself in preparation for the Fourth Plan. The physical programmes included in the Third Plan have been formulated with both these objectives in view. The total cost of completing all these programmes exceeds Rs. 8000 crores for the public sector and is estimated at Rs. 4100 crores for the private sector.\*

3. Past experience has shown that if a plan for a five-year period is prepared only in terms of the financial resources in sight at the time of the preparation of the Plan, the fullest use cannot be made of all the opportunities which present themselves as implementation proceeds. The physical programmes to be accepted for implementation over the five-year period should not, therefore, be altogether limited by the financial resources immediately in sight at the stage of drawing up the Plan, although the outlays have necessarily to be mobilised from year to year.

\*This excludes the estimated transfer of Rs. 200 crores from the public to the private sector.

4. The estimate of financial resources has been placed for the present at Rs. 7500 crores. Recent studies, however, indicate that there are possibilities of raising additional resources if certain measures are taken for mobilising the savings of the country. In fact to the extent that the physical targets included in the Plan are achieved, the prospects of raising additional financial resources will correspondingly improve. As a result of the support which India's development plans are receiving from friendly countries and from the International Bank and other international agencies there is reason to hope that the shortage of foreign exchange may not be a major impediment in the realisation of the goals of the Third Plan. On the other hand, as the Plan proceeds, it may be found that some of the projects may not be completed within the Third Plan period and a part of the investment may be deferred to the early phase of the Fourth Plan. Whatever the consequential adjustments, special care should be taken to ensure that projects which are essential for achieving the key targets included in the Third Plan are completed in time.

5. The following Table gives the distribution of the financial outlay of Rs. 7500 crores under major heads :

head	Financial provisions							
	(Rs. crores)							
	Second Plan total expen- diture	Plan percen- tage	Third Plan—financial provisions					
			States	Union Terri- tories	Centre	total	percen- tage	
agriculture and com- munity develop- ment .. ..	530	11	919	24	125	1068	14	
major and medium irrigation .. ..	420	9	630	2	18	650	9	
power .. ..	445	10	880	23	109	1012	13	
village and small in- dustries .. ..	175	4	137	4	123	264	4	
organised industry and minerals ..	900	20	70	neg	1450	1520	20	
transport and com- munications ..	1300	28	226	35	1225	1486	20	
social services and miscellaneous ..	830	18	863	87	350	1300	17	
inventories .. ..	—	—	—	—	200	200	3	
total . . . .	4600	100	3725*	175	3600	7500	100	

Out of the total financial outlay of Rs. 7500 crores in the public sector, investment is estimated to be Rs. 6300 crores and current outlay,

\*This is subject to the observation made in paragraph 8 of chapter 5.

representing expenditure on staff, subsidies, etc., Rs. 1200 crores. These figures include only that part of the expenditure on development programmes of local bodies like municipalities, panchayats, etc., as is financed by Central and State Governments as part of their Plan expenditure. They do not include the contributions which these local bodies make out of their own resources. Similarly they do not include the contributions in cash or in kind which are made by the local people in projects of a local character involving local participation.

6. The foreign exchange requirement for an investment of Rs. 10,400 crores is estimated to be over Rs. 2030 crores. The level of investment, public and private, is expected to rise from about Rs. 1600 crores in the last year of the Second Plan to about Rs. 2600 crores at the end of the Third. Investment in the public sector is expected to go up over this period from Rs. 800 crores to Rs. 1700 crores. The Third Plan provides for an increase of about 54 per cent in total investment, 70 per cent in investment in the public sector and about 32 per cent in investment in the private sector.

7. Provisions in the plans of States and at the Centre, details of which are given in Annexure II to this Summary, have been made on the principle that generally development schemes to be implemented by the States should form part of the State plans and only certain limited categories of schemes should be shown in the plans of Central Ministries as being "sponsored" by the Central Government. In this way, an attempt has been made to broaden further the scope of the plans of States and facilitate the integrated working of their development programmes. In determining the plan of each State, such factors as its needs and special problems, past progress and performance, lags in development, likely contribution to the achievement of major national targets, potential for growth and the contribution in resources were considered. The break-up of Rs. 4022 crores, which is the total of all programmes included in the plans of States and Union Territories, together with the comparable figures for the First and Second Plans is given in Annexure III to this Summary.

8. The broad indications of the physical programmes and the financial provisions as shown above give a measure of the over-all effort and the relative emphasis on different sectors envisaged in the Plan. Within this general framework, the Plan comprises a number of concrete programmes of development, which are described briefly in this Summary.

9. The programmes included in the Third Plan are expected to provide employment opportunities for 14 million people. In view of

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the fact that, as a result of the sharp increase in population, the number of new entrants to the labour force during the Third Plan period will be as many as 17 million, there is special need for increasing employment opportunities further. This will in part be done through the development of village and small industries and agriculture and social services to the extent possible. In addition, it is proposed to organise works programmes in rural areas on a mass scale.

10. It is estimated that if all the programmes included in the Third Plan are completed in time, national income (at 1960-61 prices) should go up by about 34 per cent. Net output of agriculture and allied sectors should go up by nearly 25 per cent, of mining and factory establishments by about 82 per cent and of other sectors by about 32 per cent. Estimates for agriculture, mining and factory establishments are based largely on the targets of production in the Plan. In the case of other sectors, however, only indirect estimation is possible and in many cases the basic data are quite inadequate. For realising the estimated increase of 34 per cent in national income, many difficult conditions have to be fulfilled, one of the most important being that relating to the total investment to be undertaken. On certain assumptions and taking a broad view, it is considered that over the Third Plan period national income should go up at least by about 30 per cent from about Rs. 14,500 crores (at 1960-61 prices) at the end of the Second Plan to about Rs. 19,000 crores at the end of the Third Plan. On the basis of the present estimates of population, per capita income should rise from Rs. 330 in 1960-61 to about Rs. 385 at the end of the Third Plan.

## CHAPTER 5

### FINANCIAL RESOURCES

MOBILISATION of resources for securing an adequate rate of growth is the crux of the problem of planning. The Plan envisages an investment programme of the order of Rs. 10,400 crores which will mean a stepping up of the investment rate from the current level of about 11 per cent of national income to about 14 per cent. Part of this investment is to be financed through external assistance. The rate of domestic savings will have to be raised from the current level of about 8·5 per cent of national income to about 11·5 per cent by the end of the Third Plan. It is evident that this will require the fullest effort to increase total output as envisaged in the Plan and steady pursuit of economic policies designed to keep consumption within the limits set by the requirements of investment. Considering the progress that has been made over the last decade in increasing production as well as in strengthening the potential for further expansion, the investments and savings goals and the targets of the Plan are attainable, given efficient mobilisation and deployment of resources and availability of foreign exchange.

2. Planning in physical terms or in financial terms is ultimately intended to yield the same result. These two approaches are complementary. Neither by itself gives conclusive results. The scale of investment to be decided on is, in the last analysis, a matter of judgment. This judgment may have to be reviewed from time to time and there has to be a measure of flexibility in the Plan to permit the necessary adjustments in outlays. Since, however, the objective is to carry through the physical programmes approved, and since any shortfall or slowing down on these affects the pace of further advance, effort has to be concentrated on mobilisation of the resources required. The techniques of resource mobilisation and the scope for using each one of these more effectively have thus to be kept under continuous review.

#### FINANCE FOR THE PUBLIC SECTOR

3. The programmes of development approved for the public sector involve an outlay of over Rs. 8000 crores. Every effort has to be made to mobilise internal resources adequately to carry through these programmes in full. There are, however, uncertainties as to the precise phasing of projects and the actual expenditure that will be incurred. Progress on industrial projects is tied up directly with the availability

of foreign exchange. While the actual requirements of external assistance are somewhat larger, it has been decided to limit the drawings of external assistance (apart from P.L. 480) to the figure of Rs. 2600 crores indicated in the Draft Outline. On a balance of these considerations, financial outlays in the public sector are being taken for the present at Rs. 7500 crores. It must, however, be stressed that every effort has to be made to improve upon this estimate through more effective mobilisation of savings.

4. Corresponding to the Plan outlay of Rs. 7500 crores in the public sector, investment is estimated at Rs. 6300 crores, and current outlay, representing expenditure on staff, subsidies, etc., at Rs. 1200 crores. The investment figure of Rs. 6300 crores includes a sum of Rs. 200 crores for transfer to assist selected investments in agriculture, industry, housing, etc., in the private sector. Public investment proper would thus work out at Rs. 6100 crores.

5. In the Draft Outline, the estimate of resources for the public sector was indicated at Rs. 7250 crores, Rs. 6050 crores at the Centre and Rs. 1200 crores in the States. Later, in the light of discussions with State Governments and a further examination of the Central budget for 1960-61, the estimate of total resources was revised upwards to Rs. 7453 crores—Rs. 6107 crores at the Centre and Rs. 1346 crores in the States. This estimate, rounded to Rs. 7500 crores, was submitted to the National Development Council in January, 1961. The Council noted that, considering the needs of the economy, every effort had to be made to bridge the gap between the limit of Rs. 7500 crores for financial outlays indicated by the estimates on resources and the requirements adding up to over Rs. 8000 crores for implementing the physical programmes envisaged. It was evident that the answer to the problem depended upon how far domestic savings could be stepped up to match the larger needs. The Council appointed a Committee on Savings to study and explore further possibilities in this direction. In the light of studies of the 1961-62 budgets of the Central and State Governments and of the scope for obtaining more resources under each of the heads of domestic savings, the Committee felt that there was warrant for taking a more optimistic view of the total resources that could be raised by the Centre and the States. It was, however, not possible at this stage to set out precisely the lines along which the gap between the requirements of physical programmes and the financial provisions could be bridged. It was also necessary to bear in mind the limitations in respect of foreign exchange resources. The problem would need continuous review in the light of the advance made each year in mobilising resources. Accordingly, while the financial outlays



for the Plan in the public sector are at present being retained at Rs. 7500 crores, sustained efforts will be made to improve upon this and to diminish the gap through more effective mobilisation of savings.

6. The scheme of financing the public sector plan that is now envisaged is indicated in the Table below. For comparison, the contribution by each major source of finance in the Second Plan period is also shown in the Table. The last two columns indicate the estimates separately for the Centre and the States.

### Financial resources

(Estimates for the Second and the Third Plan)

			(Rs. crores)		
	Second Plan as initially estimated	as esti- mated now	Third Plan total	Centre	State
1 balance from current revenues (excluding additional taxation)	350	(-)50	550	410	140
2 contribution of Railways	150	150 ‡	100	100	—
3 surpluses of other public enterprises	**	**	450	300	150
4 loans from the public (net)	700	780*	800	475	325
5 small savings (net)	500	400	600	213	387
6 provident fund (net)		170	265	183	82
7 steel equalisation fund (net)		38	105	105	—
8 balance of miscellaneous capital receipts over non-plan disbursements	250	22	170	428	(-)258
9 total 1 to 8	1950	1510	3040	2214	826
10 additional taxation including measures to increase the surpluses of public enterprises	450†	1052	1710	1100	610
11 budgetary receipts corresponding to external assistance	800	1090	2200	2200	—
12 deficit financing	1200	948	550	524	26
total	4800	4600	7500	6038	1462

\* Includes investments by the State Bank out of P.L. 480 funds.

† In addition there was a gap of Rs. 400 crores to be covered by additional domestic effort.

\*\*Included in items 1 and 8 in the Table.

‡ Inclusive of increased fares and freights.

§ This includes investment of P.L. 480 funds by the Reserve Bank in special securities in 1960-61.

7. Experience of the Second Plan highlights the fact that despite all the care that may be taken in estimating the contribution likely to be secured from each of the sources indicated in the Table, the outturn on individual items is in practice liable to diverge from the estimates. For the five-year period ahead, it is therefore essential to focus attention on the adequacy of the financing scheme as a whole rather than on estimates in respect of each item taken by itself. Estimates of surpluses from revenues, for example, have to be made on certain assumptions as to the growth of tax yields in response to the increase in economic activity. The growth rates in the economy may, however, vary from year to year and the response of tax yields depends on where the new incomes flow. Similarly, on the expenditure side the likely trends in non-Plan expenditure, both developmental and non-developmental, can be estimated in terms only of broad orders of magnitude. In some respects, such as surpluses of public undertakings, the data are admittedly inadequate. Moreover, it has to be borne in mind that the different modes of raising resources are at some point inter-dependent; it is possible, for example, that while in one situation more can be secured by way of taxation, in another situation recourse to market borrowings may yield a better result. Timely availability of external assistance has also an important bearing on domestic savings and the investment effort. Considering the trend in prices over the last few years and the difficult foreign exchange situation, deficit financing during the Third Plan period will have to be on a strictly limited scale.

#### RESOURCES OF STATE GOVERNMENTS

8. The review of States' resources undertaken in the light of the 1961-62 budgets indicates that the resources picture for the States is considerably better than the one that emerged after the discussions held with them during August-November, 1961; the total of States' resources now comes to Rs. 1462 crores as against the estimate of Rs. 1346 crores worked out earlier. The main factor in the improvement is the larger transfer of resources from the Centre under income-tax and shareable excises. With States' resources at Rs. 1462 crores and Central assistance at Rs. 2375 crores the total of the resources available for financing State plans comes to Rs. 3837 crores. This is close to the programmes costing Rs. 3847 crores which have been accepted for the State plans.

#### ADDITIONAL TAXATION

9. Additional taxation envisaged for the Third Plan is Rs. 1710 crores, Rs. 1100 crores at the Centre and Rs. 610 crores in the States. This order of taxation is the minimum essential. In order to realise this

target, it will be necessary to increase both direct and indirect taxation and to enlarge the surpluses of public sector enterprises. Direct taxation adds to the resources of the public sector by reducing disposable incomes in the hands of the community. Indirect taxation works through reduction in the quantum of goods or services that can be bought against the incomes that are spent. The choice between the two forms of taxation has to be considered pragmatically. The point to stress is that taxation should be sufficient to keep consumption down to limits consistent with the requirements of investment as envisaged in the Plan. It is inevitable that the larger part of the additional taxation effort has to be put through by the Central Government; a good beginning has been made in this direction in 1961-62. It is no less important that the State Governments also raise an adequate share for themselves. Taxation of the rural sector falls largely within their field. They have also to mobilise more effectively elastic sources of revenue, such as sales taxes.

#### PRIVATE INVESTMENT

10. Private investment draws on the same pool of savings as public investment. Considering the trends in the Second Plan period, it is felt that a total of Rs. 4300 crores by way of private investment can probably be financed consistently with the public sector's claims on savings. The break-up of this investment along with the corresponding estimates for the Second Plan period (original as well as revised in the light of later studies) are set out in the following Table:

	Second Plan		(Rs. crores)
	original estimates	estimated investment on the revised basis	Third Plan estimates
agriculture (including irrigation)	275	675	850
power	40	40	50
transport	85	135	250
village and small industries	100	225	325
large and medium industry and minerals**	575	725	1100
housing and other construction	925	1000	1125
inventories	400	500	600
total	2400	3300	4300

\*These figures represent aggregate investment in the private sector including that financed out of resources transferred from the public sector.

\*\*These figures do not include investment by way of modernisation and replacement.

11. Of the total investment of Rs. 4300 crores in the private sector, Rs. 200 crores will be provided by way of transfer of resources from the public sector. Part of the investment in agriculture, small scale industries and cooperatives will be financed out of assistance from the Reserve Bank. External assistance to the private sector may be of the order of Rs. 300 crores. On the whole, investment in the private sector of the order of Rs. 4300 crores appears feasible.

#### FOREIGN EXCHANGE RESOURCES

12. A deficiency in internal resources can within limits be met by additional effort. External resources present a more difficult problem. In the Second Plan the balance of payments deficit was Rs. 2100 crores—almost double the original estimate. The Third Plan begins with a level of foreign exchange reserves which permits of no further drawing down. It will, therefore, be essential to make all possible efforts to increase export earnings while continuing at the same time the policy of strict budgeting and allocation of foreign exchange for imports.

13. The following Table sets forth the balance of payments estimates for the Third Plan:

#### Financing of foreign exchange requirements for the Third Plan

		(Rs. crores)		
		total Second Plan	total Third Plan	1961-62 annual average Third Plan
<b>A receipts</b>				
1	exports	3053	3700	667
2	invisibles (net) (excluding official donations)	420*	nil	22
3	capital transactions (net) (excluding receipts of official loans and private foreign investment)	(-172)	(-550)	(-133)
4	external assistance	927†	2600	575**
5	draft on foreign exchange reserves	598	nil	nil
	total (1 to 5)‡	4826	5750	1131
<b>B payments</b>				
1	imports of machinery and equip- ment for plan projects		1900	325
2	components, intermediate pro- ducts etc., for raising production of capital goods	4826	200	60
3	maintenance imports		3650	746
	total (1 to 3)‡	4826	5750	1131

\*Includes reimbursements from the U.S.A. for freight expenses on P.L. 480 imports initially incurred by India.

†Including net drawings on the I. M. F.

\*\*Represents external assistance required for financing imports as shown below.

‡ P.L. 480 imports are excluded from both sides—about Rs. 534 crores for the Second Plan and Rs. 600 crores for the Third Plan.

14. The export target, it may be noted, is being taken at Rs. 3700 crores as compared to the total exports of Rs. 3050 crores realised in the Second Plan period. It will be essential to step up substantially the exports both of traditional as well as of new commodities. The import needs of the country as also obligations for servicing external debts are increasing and, from the point of view both of the next five years as also a longer period ahead, the fullest effort to step up exports is called for. Even with this level of exports and providing for maintenance imports of about Rs. 3650 crores—the actual needs are larger—the external account just balances. The level of Plan imports envisaged is Rs. 1900 crores while the requirements are Rs. 2030 crores. The total drawings on external assistance during the Third Plan, including imports of Rs. 200 crores for special capital goods and intermediate products, and Rs. 500 crores for repayment of maturing liabilities, are envisaged at Rs. 2600 crores apart from P.L. 480 assistance. The balance of payments difficulties the country is facing are part of the process of development. They will continue for some years to come. External assistance is essential for this period, but the aim must be to make the economy more and more self-reliant.

15. The outlook on external assistance is, on the whole, promising. At the meeting of the Consortium of friendly countries held in May, 1961 under the sponsorship of the International Bank for Reconstruction and Development, India has been assured of assistance totalling Rs. 1089 crores to provide immediate support to her balance of payments as well as to cover import orders to be placed during 1961-62 and 1962-63. The U.S.S.R. had already authorised earlier two credits amounting to Rs. 238 crores for use on Third Plan projects. A number of other friendly countries, namely, Czechoslovakia, Yugoslavia, Poland and Switzerland, have also extended credits totalling Rs. 67 crores for projects in the Third Plan. Recent developments in the field of external assistance are highly encouraging; they represent a bold and cooperative approach to the problems of assisting development in underdeveloped parts of the world. They highlight correspondingly the need for the maximum effort on our part to mobilise domestic resources with the utmost vigour and to ensure that the available assistance is utilised to the fullest benefit of the economy. From the point of view of internal as well as external resources a progressive increase in production and in savings is vital for the success of the Plan.

#### CONCLUSION

16. The estimate of resources for the Plan in the public sector which is being placed at present at Rs. 7500 crores, is not to be interpreted as indicating the limit of possibilities in this respect. The lines along

which savings can be enlarged progressively during the Third Plan period merit intensive and continuous study. There has to be close scrutiny of all non-Plan expenditures; economies in expenditure, both on Plan and on non-Plan items, can release some resources for financing development. Experience of the Second Plan suggests that the scope for taxation may, in fact, be larger than is foreseen at this stage. Provident funds, extension of life insurance and similar social security schemes to institutionalise savings are a potential source for further resources. There is need for a country-wide savings drive, particularly in the rural areas. In the States, steps are being taken to place greater responsibilities on local self-governing institutions. Larger resources for development can be mobilised if, through these institutions, the community is induced to take greater interest and participate in local developmental programmes.

17. The limit to financial resources is never an absolute one; it is related to the quality of effort that is brought to bear on the implementation of projects, on enlarging their surpluses, and on preventing, through fiscal and other measures, of leakages of resources into consumption or non-priority investment. Development has in due course to become self-financing. Substantial investments have been made in the public sector over the last ten years and every effort must be made to ensure that they yield an adequate surplus on the basis of which to plan further advance. It is important that in choosing their projects for implementation, the Central as well as the State Governments keep constantly in view the need to obtain results from these investments as quickly as possible. A comparatively small delay in completing a project and putting it into productive use makes a significant difference to the resources available for investment. Even marginal improvements in planning and execution at several points can yield a large return in the aggregate. With adequate attention to these aspects of the problem, resources can be raised beyond the limits that are at present indicated.

18. The problem of resources thus links up with the problems of administrative and organisational efficiency. The crucial tests for the Third Plan are two: (a) the extent to which the production of food and raw materials can be increased, and (b) the energy and drive that are forthcoming for securing the substantial increases needed in export earnings. Given success in these directions, the present limitations of finance can be progressively overcome.

## CHAPTER 6

### PRICE POLICY FOR THE THIRD PLAN

PRICE policy in a developing economy has to concentrate on two main objectives : (a) it must ensure that the movements of relative prices accord with the priorities and targets that have been set in the Plan; and (b) it must prevent any considerable rise in prices of essential goods that enter into the consumption of low income groups. Both these aspects were stressed in the First and the Second Plan, and various measures were taken in the course of those Plans to correct or moderate undesirable trends. Prices, however, fluctuated widely in the First Plan period and they have shown a rising trend through the Second Plan period. At the commencement of the Third Plan, the levels of wholesale prices and cost of living are already high, and it is essential to ensure that there is no accentuation of inflationary pressures in the course of the Third Plan and that the levels of living of the more vulnerable classes in society are safeguarded.

#### OUTLOOK FOR THE PLAN

2. The Plan envisages a step-up in investment from the current level of 11 per cent to about 14 per cent by the end of the five-year period. This will generate money income against which there must be an additional supply of goods to avoid inflation. A part of the inflationary pressures generated by the growth of investment in the Second Plan was neutralised by the drawing down of foreign exchange reserves. This moderating factor is not available for the Third Plan. Although the production potential of the country has been strengthened considerably in the last few years, both in agriculture and in industry, and the scheme for mobilising financial resources required for the Third Plan postulates deficit financing on a strictly limited scale, the possibilities of significant and even disturbing price rises cannot be entirely eliminated. Firstly, there is the usual uncertainty in regard to monsoons. Secondly, the various restraints on consumption implicit in the Plan may not always operate to the full extent, so that a situation of excess demands may well persist over a part of the Plan period. Thirdly, while the Plan envisages a certain balance between the rates of growth in various sectors, some imbalance is almost certain to appear from time to time; investments and outputs in various lines cannot, in actual practice, be phased out with precision; there might be 'lags' in the system at various stages. In view of these factors it will be necessary during the Third Plan to

keep a close watch on prices, especially on prices of essential commodities, and to be prepared in advance with a strategy for corrective action before difficulties actually become acute.

#### SCOPE AND LIMITS OF PRICE POLICY

3. Price policy has to be viewed as an important aspect of overall economic policy, and the question is not merely what can or ought to be done in respect of particular prices. The level and structure of prices are related to a number of basic economic decisions, some of which are taken by Government, but others rest with the producers, consumers, and investors who are widely scattered and act in terms of the prospects of economic gain to themselves. A plan tries to bring these related decisions into a common focus but there are limits to which the course of prices can be altered in the short run. Certain upward pressure on prices are implicit in development and they have to be accepted. Investment adds to real national product after a time, and certain types of investment take a longer time to mature than others. The substantial transfer of manpower and other resources to new uses involves payment of larger monetary rewards. This also is a significant inflationary factor.

4. There are, on the other hand, factors that tend to moderate these upward pressures. To the extent that there are unused resources that can be drawn upon and in so far as in certain sectors, such as agriculture, an increase in production could be secured quickly with comparatively small investment, the expansionary pressures may be softened. Then again some of the investments made earlier add to current output, and as the level of technology and organisational efficiency improve, relatively large increases in output could be secured without a proportionate increase in costs.

5. The balance between the expansionary and the moderating factors mentioned above tends, however, to be shifting and uncertain. An underdeveloped economy has to step up investments continually over a period of years and has to convert a growing proportion of unskilled rural labour into skilled workers and technicians. Various bottlenecks arise in this process of adaptation. Since real resources needed have to be mobilised through monetary incentives, and a fairly high degree of profitability secured for those sectors of the economy which have to be expanded rapidly, it is essential to be prepared for a moderate rise in the price level while directing every effort possible towards preventing a rise in the prices of essential goods. And yet, the dangers of continued or excessive price rises are obvious. If the financial



outlays in the Plan are realised only at higher prices, the real content of the Plan gets correspondingly reduced. Also an inflationary situation is not conducive to the most efficient use of resources. It distorts relative prices and tends to move resources away from the uses that have higher priority from a social point of view. The problem, thus, is one of drawing the right line between too much intervention and too little, and of devising appropriate techniques of controls and regulation at certain vital points in the system.

#### CONSTITUENTS OF PRICE POLICY

6. A major constituent of price policy in this situation is fiscal and monetary discipline. Fiscal policy must be directed to mopping up the excess purchasing power which tends to push up demands above the level of available supplies and thereby to increase the savings to bring to the desirable conditions of equality between saving and investment. A word may be said in this context regarding the price policy of public enterprises. These enterprises have an important role in enlarging public savings. They must, therefore, operate at a profit and maintain the high standard of efficiency required for this purpose. Their price policy should be such as would secure an adequate return on the investment made from public funds.

7. Monetary policy has to go hand in hand with fiscal policy. Just as the latter has to avoid the creation of excess purchasing power through Government operations, the former has to regulate the pace of credit creation through banks; speculative holding of commodities and accumulation of inventories need particularly to be discouraged in this content.

8. Commercial policy can also be used to an extent to overcome domestic shortages, but since the need for several years to come is to economise on imports and to increase exports, the pressure will continually be towards an increase in domestic prices. Thus, the scope of commercial policy is limited.

9. Without adequate fiscal and monetary discipline, other regulatory measures cannot have the desired effects. But, fiscal and monetary policies by themselves may also not suffice to secure the right relationship between various prices or to prevent undue hardship to low and fixed income groups. It may, therefore, be necessary to have physical allocations and direct control in certain sectors. The prices of what may be called basic essentials must be held reasonably stable; in regard to commodities that are "less essential" or could be classed as comforts or luxuries, a rise in prices may have to be tolerated. In

the case of comforts and luxuries, in fact, an important factor in policy is the need to raise more resources. The techniques of price regulation will, however, vary from commodity to commodity.

10. Government have powers to control prices and make allocations in respect of several commodities, for example, steel, cement, raw cotton, sugar, coal, chemicals, jute, etc. Both under the Essential Commodities Act and the Industrial Development and Regulation Act, the prices and distribution of a number of commodities are subject to control. Government can also adjust the rates of excise duty from time to time on all excisable articles so as to alter the relationship between particular prices. At present, this adjustment can be made only when the Budget is being presented. It would be desirable to examine whether, in the interest of flexibility, Government should take powers to alter excise duty suitably within defined limits in the course of the year. The coverage of controls on items like these and the extent to which prices may have to be adjusted upwards or downwards will have to be determined in the light of trends in production and demand as they arise from time to time.

#### OPEN MARKET OPERATIONS IN FOODGRAINS

11. In an economy like ours where a substantial proportion of the expenditure incurred by families in the low income ranges is on foodgrains, reasonable stability of foodgrain prices is of vital importance. Experience in this field over the last decade and more has shown clearly that this is a field in which neither complete control nor complete de-control is feasible. Two objectives have to be kept in mind. On the one hand, the producer of foodgrains must get a reasonable return. The farmer, in other words, should be assured that the prices of foodgrains and the other commodities that he produces will not be allowed to fall below a reasonable minimum. At the other end, steps must be taken to ensure that in respect of foodgrains in particular, the consumer does not have to pay excessively high prices. These are only the broad lines of action; the floors and ceilings will have to be determined in each case on a consideration of all the relevant facts. The key to stabilisation is building up of buffer stocks and operating on them through continuous purchases and sales over a wide front. A major difficulty in the past has been inadequate storage facilities with Government. It is essential as part of long-range food policy that the storage and warehousing facilities under Government's control should be rapidly expanded. It should be known that throughout the Plan period Government would buy if prices of foodgrains tended to sag and would sell if they tended to rise. These open market operations

need to be undertaken flexibly and at a large number of places so that their impact is felt directly at the points where it is needed. From this point of view, the level of stocks with Government might well have to be about 5 million tons. A network of cooperative and governmental agencies close to the farmer, licensing and regulation of wholesale trade, extension of State Trading in suitable directions and considerable sharing by Government and cooperatives in distribution arrangements at retail stage are essential for the success of purchase and sale operations for stabilising prices and correcting seasonal and regional variations. Regulation and control of prices are in this view an aspect of the problem of institutional changes—that is, a strengthening of public and cooperative as against private agencies—that must necessarily accompany developmental planning.

12. To conclude, price rigidity is incompatible with development and some prices cannot but rise. The object must be to regulate within defined limits the prices of basic essentials. Price regulation involves action at various points. Fiscal and monetary policies have continually to be oriented towards restraint in consumption and maximisation of savings. The role of direct regulation and controls is essentially to correct imbalances in selected sectors and for this purpose buffer stocks and open market operations are vital. The Plan provides for adequate increases in the output of essential commodities; the primary task is to achieve these targets. It is also envisaged that the Government would set up and promote the necessary cooperative and State agencies for purchase and sale of foodgrains at appropriate stages so as to strengthen its power to influence the course of prices and to prevent anti-social activities like hoarding and profiteering from getting the upper hand.

## CHAPTER 7

### DEVELOPMENT OF FOREIGN TRADE

#### REVIEW OF IMPORTS AND EXPORTS

WITH the growth of industrial production and the development of the economy as a whole, the level of imports has risen substantially over the last decade. During the First Plan period, total imports amounted to Rs. 3620 crores—an average of Rs. 724 crores a year. Aggregate imports for the Second Plan as a whole are estimated at Rs. 5360 crores—an annual average of Rs. 1072 crores which is about 50 per cent higher than the average level for the First Plan. The higher level of imports during the Second Plan was mainly on account of larger requirements of capital goods, raw materials, intermediate products, components, etc.

2. With its larger investment programme and continued priority for development of basic and heavy capital goods industries, the Third Plan entails even larger import requirements than during the Second Plan. Payments for imports of machinery and equipment for Plan projects during the Third Plan are expected to amount to Rs. 1900 crores. In addition, imports of components, balancing equipment, etc., of at least Rs. 200 crores would be required for increasing the domestic output of capital goods and equipment. After allowing for possibilities of import substitutions, provision has also to be made for a minimum of Rs. 3650 crores for imports of raw materials, intermediate products, capital goods for replacement, essential consumer goods, etc., for the maintenance of the economy. The total import bill for the Third Plan is thus estimated at Rs. 5750 crores excluding P.L. 480 imports of about Rs. 600 crores.

3. Over the past decade India's exports have on the whole been stagnant. They averaged Rs. 609 crores a year during the First Plan period and Rs. 614 crores during the Second Plan. In terms of volume, exports were higher in the Second Plan by 9 per cent; but this was not fully reflected in larger export earnings on account of less favourable unit values. It may be added that during this decade, while total world export trade doubled, India's share declined from 2.1 per cent in 1950 to 1.1 per cent in 1960.

4. As for the pattern of export trade over the last ten years, while the exports of agriculture-based commodities did not on the whole

improve, significant increases were achieved in the exports of new manufactures and of products like iron ore. These increases were not however, sufficient to offset the decline in the traditional exports.

5. In recent years and more especially since the middle of the Second Plan period, a series of measures have been initiated with the object of stepping up exports. These include, on the organisational side, the setting up of export promotion councils for individual commodities, establishment of the Export Risks Insurance Corporation, increased facilities for publicity, fairs, exhibitions, etc. A second group of measures have consisted in the removal of export controls and quota restrictions, abolition of most of the export duties, refund of excise duties, special import licences for raw materials for exports and priorities for transport facilities. Thirdly, attempts have been made to diversify India's foreign trade through the State Trading Corporation and the development of trading relations with the U.S.S.R. and countries in Eastern Europe.

#### EXPORT OBJECTIVES IN THE THIRD PLAN

6. For achieving a substantial increase in exports, action has to be taken along several directions, in particular the following:

- (a) domestic consumption must be held within reasonable limits in order to create export surpluses;
- (b) steps to increase the comparative profitability of exports are essential;
- (c) in their cost structure and productivity, export industries must become competitive as early as possible. Industrial licensing policies should also be oriented towards export promotion; and
- (d) steps must be taken to mobilise public opinion in favour of exports, to enlist the efforts of industry and trade, to improve Government's own organisation for market research and intelligence and commercial representation abroad, and to enlarge facilities for credit, insurance, etc.

7. On the basis of studies undertaken and assuming a large-scale effort to increase exports and reasonable conditions of demand abroad, exports over the Third Plan period have been taken at Rs. 3700 crores. The effort must indeed be on a larger scale. Considering the requirements on account of repayment obligations and maintenance and development imports, it is estimated that by the end of the Fourth Plan the level of exports would have to rise to about Rs. 1300 to Rs. 1400 crores, that is, to at least twice the present level. This in itself is one of the essential conditions for ensuring that India's economy becomes self-reliant and self-sustaining by the Fifth Plan.

## MEASURES FOR EXPANDING EXPORTS

8. Proposals for bringing about a marked increase in exports fall broadly under two groups, namely, general policies and measures relating to specific commodities. The primary object of the general policies envisaged is to create the necessary climate in the country for the export effort, to restrain domestic demands and enlarge surpluses available for export, and to reduce production costs. Beyond a point action designed to increase exports will inevitably have certain repercussions on the domestic economy.

9. By far the most important condition for fulfilling the export programme is the realisation of the agricultural and industrial targets of the Plan.

10. If these were to fall short, measures which might otherwise be feasible would become less so. Restraints on the growth of internal consumption are an essential condition of a successful export drive. They have to be resorted to both where supplies are insufficient and for ensuring the correct priorities in investment. The rate of development of the economy would be more than proportionately enhanced through the additional exports which restraints on consumption could facilitate. As a rule, what is required is not absolute reduction in the total or the per capita consumption, but only a slowing down in the rate at which consumption increases. In taking these and other measures it is essential that there should be greater public understanding of the need to step up exports and recognition that this object cannot be achieved without a degree of sacrifice which is equitably shared.

11. For achieving export targets, it is necessary not only to create surpluses for export but also to ensure that these surpluses become available at prices competitive with those of other suppliers in markets abroad. From this point of view it is vital that inflationary pressures should be kept in check.

12. For developing the export effort it is essential that a considerable part of India's industry should become much more competitive than at present. Study groups have recently been set up to consider ways of reducing costs in some industries. It is proposed to review the cost studies undertaken for different industries with a view to working out the lines along which programmes for cost reduction could be pursued systematically industry by industry. It is visualised that in industries which are significant for developing exports, licensing policies should take due account of the economies of scale. This factor should also be given weight in determining the location of individual units.

13. Rapidly growing internal demands have the effect of making sales in the domestic market relatively more profitable than in foreign

markets. Within limits and over a short period it may be necessary to consider fiscal measures designed to correct this trend.

14. In the allotment of foreign exchange there has to be a clear priority in favour of industries producing for exports or providing a substantial surplus for exports. In some cases, it might be necessary, in order to secure surpluses for export, to set physical limits to the total internal sale of individual manufacturing units. Enterprises in the public sector should give a lead in the export effort by earmarking part of their output for export.

15. Export Promotion Councils should play a leading role in studying overseas markets and maintaining up-to-date intelligence. It should also be possible for India's commercial representatives in foreign countries to make available to industry and trade information regarding overseas markets. State trading organisations can play an important part in developing exports. Exports through cooperative organisations should be encouraged. It is also proposed to support the efforts of private export houses.

16. Diversification of exports and the development of new export markets should be viewed as part of a wider effort to enlarge the country's foreign trade and expand commercial and economic relations with other countries. In the coming years special attention should be given to the development of close economic relations with other developing regions, notably South and South-East Asia, West Asia, Africa, South America and West Indies. These countries will need capital goods and components and raw materials for their economic development and mutual possibilities of developing trade with them should be vigorously explored. Exports to the European Common Market countries also need special attention since a high proportion of India's trade deficit is with them. With United Kingdom, India has long enjoyed close trading ties which should be further strengthened in view of the growth of India's own productive capacity and changing economic structure. India's commercial transactions with USSR and countries in Eastern Europe are on a balancing basis and trade with these countries should increase significantly over the next few years. Trade with Yugoslavia has already expanded steadily and there is considerable scope for widening economic relations with it. North America and, in particular, U.S.A. provide about one-fourth of the country's imports. Their growing economies and high living standards offer large possibilities for the development of foreign trade and specially of exports. Thus, as the pace of India's economic progress increases and she is able both to offer and to receive more, she becomes part of an ever-expanding world economy, in which growing cultural and economic relations enrich the life and strengthen the economies of all nations.

## CHAPTER 8

### BALANCED REGIONAL DEVELOPMENT

BALANCED development of different parts of the country, extension of the benefits of economic progress to the less developed regions and widespread diffusion of industries are among the major aims of planned development. In striving for such a balance, certain inherent difficulties have to be met, specially in the early phases of economic development. As resources are limited, frequently, advantage lies in concentrating them at those points within the economy at which the returns are likely to be favourable. As development proceeds, investments are undertaken over a wider area and resources can be applied at a large number of points, thereby resulting in greater spread of benefits. In the interest of development itself, the maximum increase in national income should be achieved and resources obtained for further investment. The process is a cumulative one, each stage determining the shape of the next. In some fields, as in industry, intensive and localised development may be inevitable. Along with this, in other areas, the aim should be to provide for more dispersed advance in sectors like agriculture, small industries, power, communications and social services. Equally with industry, investment in economic and social overheads helps to create numerous promising centres for growth. A large country with intensive natural resources, viewing each phase of its development in the perspective of a long-term plan, has the means not only to realise a high and sustained rate of growth but also to enable its less developed regions to come up to the level of the rest.

2. The two aims—*increase in national income and more balanced development of the different parts of the country*—are, thus, related to one another and, step by step, it becomes possible to create conditions in which resources in terms of natural endowment, skill and capital in each region are fully utilised. In each region the nature of the problem and the impediments to rapid development in particular fields should be carefully studied and appropriate measures devised for accelerated development. The growth of large industries, especially basic and heavy industries, is frequently a spearhead of intensive and broad-based development. However, not all regions can offer equally favourable conditions for the development of large-scale industry. It is also possible to over-estimate the significance of the location of large industrial units in relation to the living standards



of the bulk of population. There are many examples, both of countries and of regions within a country in which, with limited development in industry, an appreciable rise in living standards has been achieved through the fuller utilisation of local, natural and human resources. Each region should endeavour to identify, plan for and promote industries which are specially suited to its conditions and for which it can provide relatively greater facilities.

3. The general approach set out above was expressed through a variety of policies and programmes which were embodied in the Second Five Year Plan. Among the most important of these were :

- (1) the priority given to programmes like agriculture, community development, irrigation, specially minor irrigation, local development works, etc., which spread over the entire area within the shortest possible time;
- (2) provision of facilities such as power, water supply, transport and communications, training institutions, etc., in areas which were lagging behind industrially or where there was greater need for providing opportunities for employment;
- (3) programme for the expansion of village and small industries; and
- (4) in the location of new enterprises, whether public or private, consideration given to the need for developing a balanced economy in different parts of the country. In particular, this aspect was to be kept in view where the location of an industry was not determined almost entirely by the availability of raw materials or other natural resources.

During the Second Plan regional aspects of development were provided for through emphasis on programmes which have a direct bearing on the welfare of the people, additional programmes for special areas and steps taken to secure more dispersed development of industry.

4. The Third Plan provides extensive opportunity for the development of different parts of the country. Some of the more important programmes in the Plan fall largely within the plans of the States. In drawing up these plans, the broad objectives have been to enable each State to contribute their best towards increasing agricultural production, to secure the largest measure of increase in income and employment feasible, to develop social services and to raise the levels of living for the less-developed areas. Taken as a whole, the size and pattern of outlay in the States in the Third Plan are calculated to reduce disparities in developments between different States.

5. Besides the plans of the States, there are several other ways in which the Third Plan will enlarge the possibilities of development in areas which have in the past been relatively backward. Thus the intensive development of agriculture, extension of irrigation, the programme of village and small industries, the large-scale expansion of power, developments of roads and road transport, provision for universal education for the age-group 6—11 and larger opportunities for secondary, technical and vocational education, improvements in conditions of living and water supply and programmes for the welfare of scheduled tribes and scheduled castes and other backward classes will go a long way to provide throughout the country the foundation for rapid economic development. The rural works programme will expand opportunities for work in areas with heavy pressure of population and scanty development of natural resources as well as in other areas. In some parts of the country there will be considerable development in plantation industries, specially tea, coffee and rubber. Large industrial projects, river valley projects and others will serve as vital centres for future growth.

6. For basic industries, location has generally to be based on technical and economic considerations. In the case of industries which may be able to export a significant proportion of their output, in the national interest, the location of new or additional capacity has to be guided by the need to secure economies of scale and to enhance the ability to compete in foreign markets. But subject to these broad considerations, the needs of areas which have the necessary potential for industrial development have to be kept in view in the selection of sites for industrial projects both in the public and private sectors. The general approach must be to avoid further concentration of industrial activities in areas where considerable development has already taken place or has been planned, but expansion in existing industries in such areas cannot of course be ruled out if it leads to greater economies in production. From decisions regarding location of projects in the public sector which have been reached so far, it is apparent that there will be a fair measure of dispersal, and various regions will have a significant share in industrial development. In the licensing of industrial projects in the private sector also, the claims of under-developed regions are kept in view and locations in such areas are suggested to prospective industrialists. The progress, programmes and production targets of a number of industries in the private sector are examined from time to time with a view to securing the location of new capacity on a zonal basis. The Third Plan also includes a proposal for setting up "industrial development areas" in backward regions.

7. The benefits of a large project accrue in greater measure to the population of the region in which it is located if certain related or complementary programmes and schemes are undertaken. Therefore, as an essential feature of planning, every major project should be regarded as a nucleus for integrated development of the region as a whole.

8. Development potentials of different regions need to be studied in relation to the possibilities which arise from advances in technology and science. Increase in the supply of electric power and the extension of rural electrification are important factors in opening up new possibilities of regional development. Several of the less developed areas in the country will register considerable progress in these directions during the Third Plan.

9. The requirements of the population of relatively less developed areas in which new industrial projects may be located should be particularly borne in mind when programmes for technical, vocational and secondary education are implemented. In areas of high density, besides ensuring their own development as intensively as possible, technical training programmes should be expanded considerably, so that a body of trained workers become available for work elsewhere.

10. The Third Plan embodies proposals for the continuous study of economic trends and rates of growth in different areas. Under-developed areas which need special attention have to be more closely identified, their resources surveyed and the factors influencing their development examined. Within every State, there are areas which are more under-developed than others. It has also been agreed that the Central Statistical Organisation will undertake, in cooperation with State Statistical Bureaus, the task of preparing annual estimates of State income on a comparable basis.

11. Development of regions and of the national economy as a whole have to be viewed as parts of the same process. The progress of the national economy will be reflected in the rate of growth realised by different regions and, in turn, greater development of the sources in the regions must contribute towards accelerating the rate of progress in the country as a whole. Excessive emphasis on the problems of particular regions has to be guarded against for, in the final analysis, it is as integral parts of the country that different regions can best hope to realise their full potential for growth. Balanced regional growth emerges eventually from a whole series of connected developments, many of which are of a long-term character. Whatever the present shortcomings, the aim must be that over a reasonable

period, all regions in the country should realise their potential for economic development and should attain levels of living not far removed from those of the nation as a whole. Progress in different regions must, therefore, be watched carefully and additional steps taken to speed up development in particular areas which are found to be seriously lagging behind.

## CHAPTER 9

### EMPLOYMENT AND MANPOWER.

EMPLOYMENT has been a major objective of planning in India. Full utilisation of the available manpower resources can be achieved after a considerable period of development. However, expansion of employment opportunities commensurate with the increase in the labour force over the Plan period is conceived as one of the principal aims of the Third Plan.

2. In view of the numbers involved, provision of adequate employment opportunities is among the most difficult tasks to be accomplished during the next five years. In the rural areas both unemployment and under-employment exist side by side, and the distinction between them is by no means sharp. In the villages unemployment ordinarily takes the form of under-employment, the latter being more marked during the slack seasons. In the urban areas, employment is linked with fluctuations in the state of business, transport and industry. Any change in conditions is reflected in an increase or decrease in employment figures. While this is generally true, towns share with villages a measure of distress caused by under-employment.

3. Existing data on employment are inadequate. However, with the limited information that is available, it is reckoned that the backlog of unemployment at the end of the Second Plan is about 9 million. This increase in backlog as compared to 5.3 million suggested in the Second Plan means that while the absolute impact of the Plan on employment was significant, it was not sufficient to absorb the increasing numbers of new entrants to labour force. Apart from this absolute unemployment, the magnitude of under-employment in the sense of those who have some work but are willing to take up additional work is believed to be of the order of 15 to 18 million approximately. It is estimated that increase in labour force in the Third Plan—in the light of data available in 1961 Census—will be roughly about 17 million, one-third of the increase being in urban areas. As against this, it is estimated that the Third Plan may provide additional employment of the order of 14 million—10.5 million outside agriculture and 3.5 million in agriculture. The break-up of the non-agricultural component of employment is given in the following

Table. Thus, even for providing work for the new entrants to labour force, there should be additional employment for 3 million persons.

### Additional non-agricultural Employment in the Third Plan

(in lakhs)

sector	
1 construction*	23.00
2 irrigation and power	1.00
3 railways	1.40
4 other transport and communications	8.80
5 industries and minerals	7.50
6 small industries	9.00
7 forestry, fisheries and allied services	7.20
8 education	5.90
9 health	1.40
10 other social services	0.80
11 government service	1.50
	67.50
12 others including trade and commerce at 56 per cent of total for items 1—11	37.80
total	105.30

4. It is proposed that the problem should be approached along three main directions. Firstly, within the framework of the Plan, efforts have to be made to ensure that the employment effects are spread out more widely and evenly than in the past. Secondly, a fairly large programme of rural industrialisation should be undertaken with special emphasis on rural electrification, development of rural industrial estates, promotion of village industries and effective redeployment of manpower. Thirdly, in addition to other measures for increasing employment through small industries, it is proposed to organise rural works programmes which

\* Since construction accounts for a large portion of the measurable employment, its break-up under different developmental sectors may be useful :

(in lakhs)

1 agriculture and community development	6.10
2 irrigation and power	4.90
3 industries and minerals, including cottage and small industries	4.60
4 transport and communications, including railways	3.40
5 social services	3.50
6 miscellaneous	0.50
total	23.00

will provide work for an average of, say, 100 days in the year for about 2.5 million persons and, if possible, more.

5. It is not enough to analyse the problem of unemployment in terms of the country as a whole or in relation to large territories such as States. Every district has development programmes relating to agriculture, irrigation, power, village and small industries, communications and social services which are intended to raise the level of economic activity in the area. It is, therefore, necessary that the unemployment problem in each State should be broken down by districts and at each level—village, block or district—as much of it as possible should be tackled. Such an analysis of local employment problem would enable authorities to raise resources for dealing with specific categories of unemployed persons and introduce a measure of flexibility in tackling the problem in each area in the light of local conditions and resources.

6. In the context of large-scale unemployment and under-employment, and large new entrants to the labour force during the Third Plan, there is great need to re-examine the scope that exists in the construction field for increasing use of manual labour. Except where strong reasons to the contrary exist, labour-intensive methods should be preferred. Given the necessary organisation and advance planning, it is possible to use manpower to a greater extent than has been common in recent years.

7. Although much has been done in recent years to promote village and small industries, a much larger employment potential in this field still remains to be secured. This could be achieved by adequate supply of raw materials, provision of processing and other facilities such as credit, marketing, etc., to the existing enterprises. Special efforts should be made to enable small units (whether run by cooperatives of artisans or by individual entrepreneurs) to attain their maximum production potential. Rural industrialisation and rural electrification are connected programmes and are of the greatest significance for the expansion of stable employment opportunities in rural areas. In each area it is necessary to develop centres or nuclei of industrial development in small towns and centrally situated villages and link them with one another through improved transport and other facilities. In each district, through forward planning, the programme for agricultural and industrial development should be coordinated with the supply of power.

8. A lasting solution of the problem of under-employment will require not only the universal adoption of scientific agriculture but also the diversification and strengthening of the rural economic structure. Programmes for developing village and small industries and processing

industries have to be further intensified and new industries carried into rural areas. While the rural economy is being thus built up, there is need for comprehensive works programmes in all rural areas, and more especially in those in which there is heavy pressure of population on land and considerable unemployment and under-employment. This programme will include mainly local works at the block and village levels. Works programmes will be planned for execution specially during the slack agricultural seasons. In all cases of works to be undertaken in villages, wages are to be paid at village rates. (Following broadly the lines mentioned above, 34 pilot projects have been recently undertaken. They include supplementary schemes for irrigation, afforestation, soil conservation, drainage, land reclamation and improvement of communications.) On the basis of the initial experience gained in the pilot projects it is proposed to extend the programme on a large scale to other areas. Tentatively, it is envisaged that employment through works programmes should be found for about 100,000 persons in the first year, about 400,000 to 500,000 persons in the second year, about a million in the third year, rising to about 2.5 million in the last year of the Plan.) The programme as a whole might entail a total outlay of the order of Rs. 150 crores over the Plan period. As the programme develops, it might be possible to consider ways of paying wages in part in the form of foodgrains. To carry out the works programmes, adequate organisations will need to be built up mainly in the States, and also, to the extent necessary, at the Centre.

9. With rapid industrialisation there will be larger employment opportunities for the educated, and the educational system will have to be geared to meet the rapidly changing pattern of personnel requirements. As education expands at the secondary level, greater attention has to be given to the absorption of the educated persons into gainful employment. At present the number of educated unemployed may be estimated at nearly a million. In the Third Plan the number of new entrants with education up to the school leaving standard or above is estimated at about 3 million. (Expansion in agriculture, industry and transport will provide large and increasing demand for persons with skill and vocational or technical training.) In recent years there has been a change in attitudes towards manual work on the part of educated persons; programmes for orienting them to the requirements of the developing economy are proposed to be taken up on a larger scale. The scope for regular and continuous employment within the rural economy for educated persons at levels of income comparable in real terms to those in the towns will greatly increase with the development of cooperatives and of scientific agriculture and the establishment of



democratic institutions. ( It should also be possible to assist fairly large numbers of young persons with education to set up small industries in rural centres at which power can be made available. ) •

• 10. There is need for redeployment of skilled personnel from projects which have been completed or are nearing completion to those on which construction is to commence. Machinery created for this purpose in the Second Plan has functioned satisfactorily. While maintaining this machinery, the problem could be more manageable in size if work on similar projects is better phased and advance planning is undertaken.

## CHAPTER 10

### ORGANISATION OF PUBLIC ENTERPRISES

DURING the last few years a number of major industrial undertakings have been established in the public sector. Several more are due to come in existence in the course of the Third Plan. Indeed, an increasingly large number of new enterprises will be established during each subsequent Plan period. So far, however, the main concern has been with initiating new projects and finding financial resources for them. It was getting things started which counted. The time has now come to give close attention to the question of how best to manage these enterprises so that they become more efficient producers, capable of yielding substantial surpluses which will provide for future expansion, and set an example of careful planning, good management and cordial worker and management relationship. No matter how well the project has been conceived and the plant engineered, it will ultimately succeed or fail on the strength of its management.

2. Public enterprises in the manufacturing field have been organised in three forms, namely (1) departmentally administered, (2) corporation constituted by a statute, and (3) joint stock companies established under the Companies Act. The usual practice till recently was to establish each manufacturing unit as an independent company. Where it was felt that some special coordination was necessary between certain enterprises, it was sought to be achieved by having a number of common directors.

3. It has now been recognised that proliferation of special organisations of such number and variety as to be unmanageable should be avoided and there should be a definite policy of consolidating these organisations so as to bring together enterprises functioning broadly in the same field. This would make it possible to provide common facilities to individual units, which otherwise might be well beyond their means, and lead to overall economy and efficiency. Bringing together of several manufacturing units under the same company in this manner should not, however, lead to excessive centralisation on the part of the Board of Directors or intervention in the day-to-day activities of the individual constituent production units; otherwise, the General Manager of the undertaking will not have the necessary authority and initiative to ensure smooth and efficient conduct of the enterprises.

4. Until some years ago, in the earlier stages projects were handled departmentally. Later, a decision was taken that Government enterprises of a commercial nature should be organised as companies.\* At present in the case of most of the new projects, a company is formed to see the project through from the very outset, including the stage of construction. Existing companies are being encouraged to establish new units in their field and in the case of larger companies to establish their own specialised agencies for designing and construction.

5. Efficient conduct of industrial and business enterprises requires that operational decisions should be prompt. A large measure of delegation of authority and flexibility of operation is necessary to enable the management of the enterprise to produce results. A number of factors come in the way of efficient functioning of an enterprise, such as enough experienced men not being in positions of management, lack of quality of managerial personnel, insufficient delegation within the enterprise accompanied by failure to define responsibilities and duties and inadequate consciousness of profit and cost.

6. Some important aspects, calling for suitable action, are discussed below :

*Public accountability.*—Democratic control of publicly owned industries is very important. At the same time it is generally agreed that a public enterprise, if it is to be run successfully, must possess a sufficient degree of autonomy from Government and Parliament. The need has, therefore, been felt for a Committee of Parliament which would enable informed parliamentary criticism to be brought to bear on public enterprises.

7. *Nature and functions of the Board of Directors.*—The main function of the Board should be to lay down the broad policies and general objectives of the undertakings. Subject to the policies laid down, the Managing Director or the General Manager should have full authority and he should be held responsible for achieving the necessary results. The Managing Director and/or Chairman should be appointed by the Government and, except in the case of very small concerns, should be full-time. Membership of the Board should be on the basis of ability, experience and administrative competence. The Board of Directors should have adequate powers to make appointments and to fix salaries. The wide delegation of power from the Ministry to Company controlling several undertakings of allied character, should be accompanied by sufficient delegation of authority by the Company to the General Managers of individual enterprises; otherwise the defects of excessive centralisation would remain and the operation of individual undertakings would be adversely affected.

8. *Managing Director/General Manager.*—The leadership, guidance and the main driving force must come from the Managing Director/the General Manager. He must be selected on the basis of technical competence, administrative ability and quality of leadership. He must enjoy real autonomy within the framework of general rules laid down and must be held responsible for the results. Day-to-day decisions should be his concern. It must be recognised that some mistakes will occur for these are inevitable when decisions have to be taken quickly in the interests of efficiency. For the proper discharge of his responsibilities, subject to performance, the General Manager should remain in charge of an undertaking for a reasonably long period so that he has an intimate knowledge of the problems and possibilities of his enterprises.

The General Manager should have enough supporting management staff to provide adequate control, supervision, direction and training for all employees. He should delegate and define adequate authority to them and then hold them responsible for performance.

9. *The Role of Financial Advisers.*—All companies should be provided with an internal Financial Adviser who should function subject to the authority of the General Manager. The Financial Adviser should concern himself with problems of financial management rather than devote exclusive attention to those of control of expenditure.

10. *Building up of Management Cadres.*—The efficient functioning of the enterprises will depend greatly on two important factors bearing on personnel management, namely training for position of responsibility in the organisation and development of personnel to serve as second line for eventual selection to key appointments. The personnel should not only be technically qualified but should also develop an "all-plant" outlook.

11. *Advance planning.*—Planning, that is deciding in advance what is to be done, is a precondition for the success of an enterprise. It provides the basis for organisation, assembling of resources, direction and control. The plans for a given enterprise should fall into a hierarchy. A general objective is accompanied by a whole series of successively more detailed plans, each designed to implement the general plan of which it is a part. Similarly, there have to be general plans for longer periods, say, five years, annual operational plans and budgets and detailed day-to-day programme of individual departments.

12. Advance planning provides an opportunity for seeing that each part fits in with the other and is directed towards the overall purpose. When bottlenecks or weak spots are uncovered by careful and realistic

advance planning, there is often time to find a remedy before the event occurs, whereas expensive breakdowns may be unavoidable if corrective action is not initiated until overwhelmed by a crisis. Setting up of specific goals and sub-goals is an inseparable part of the whole planning process. A wide variety of operating standards and 'norms' need to be set up to express the anticipated results of the more detailed plan.

13. *Incentives*.—An enterprise which has worked realistic 'norms' of performance would find it easy to introduce systems of wage incentives, which play an important part in raising labour productivity, reducing costs and improving quality. These should be introduced on the largest possible scale.

14. *Research departments*.—It is necessary to maintain adequately staffed Research and Development Departments in the public undertakings which should constantly endeavour to improve the quality of the product and operational and technical efficiency through scientific studies.

15. *Personnel relations*.—The enterprises in the public sector have a special obligation to follow labour policies which are conducive to securing and keeping a competent working force at a reasonable cost.

16. *Surpluses and their utilisation*.—It is incumbent on public enterprises to produce efficiently and to accumulate surpluses which should be earmarked for further development. They must also assume responsibility for continuously improving their performance, for initiating and planning their growth and expansion and for securing the requisite resources.

17. The purpose of this brief review is not to prescribe detailed operational recommendations for individual enterprises but to touch upon some significant aspects to which greater attention needs to be given.

## CHAPTER 11

### ADMINISTRATION AND PUBLIC COOPERATION

#### INTRODUCTION

THE Third Five Year Plan envisages a scale of national effort far exceeding that of the preceding decade. A statement of its objectives and targets can scarcely convey the scope and range of the tasks which the nation has undertaken to fulfil during the next five years. In the last analysis the Plan rests on the belief that the requisite effort will be forthcoming and that, at each level in the national life, within the limits of human endeavour, an attempt will be made to implement it with the utmost efficiency. Of the many assumptions on which a Five Year Plan is based, this is not only the most important but also the most difficult.

2. The Plan has to be implemented at many levels—national, State, district, block and village. At each level, in relation to the tasks assigned, there has to be cooperation between different agencies and an understanding of the purposes of the Plan and the means through which they are to be secured. In a vast and varied structure organised on a federal basis, a great deal depends on being able to communicate effectively between different levels and at the same level between different agencies. In a developing economy the functioning, side by side, of an expanding public sector and a private sector, which is in part organised and in large part unorganised, also raises difficult administrative problems.

3. The past decade has been a period of considerable change and adaptation in the field of administration. Innovations have been introduced and new institutions established, although perhaps many of them have yet to be fully integrated with one another and with the structure as a whole. With increase in the range of Government's responsibilities and of the tempo of development, the volume and complexity of administrative work have also grown. The administrative machinery has been strained and, at many points in the structure, the available personnel are not adequate in quality and numbers. The administrative burden of carrying out plans of development, large as it is at present, will increase manifold under the Third Plan, and doubtless new problems in public relations will also come up. As large burdens are thrown on the administrative structure, it grows in size; as its size increases, it becomes slower in its functioning. Delays occur and affect operations at every stage and the expected outputs are further deferred. New tasks become difficult

to accomplish if the management of those in hand is open to just criticism. In these circumstances, there is need for far-reaching changes in procedures and approach and for re-examination of prevalent methods and attitudes.

- 4. In the recent past, certain aspects of administration have attracted pointed attention. These include the slow pace of execution in many fields, problems involved in the planning, construction and operation of large projects, especially increase in costs and adherence to time schedules, difficulties in training men on a larger scale and securing personnel with the requisite calibre and experience, achieving coordination in detail in related sectors of the economy and, above all, enlisting widespread support and cooperation from the community as a whole. In the larger setting of the Third Plan, these problems are accentuated and gain greater urgency. The benefits that may accrue from the Third Plan will depend in particular, in the early stages, upon the manner in which these problems are resolved. There is need for far-reaching changes in procedures and approach and for re-examination of prevalent methods and attitudes.

#### EFFICIENCY AND STANDARDS

5. Each area of development administration has its own specific problems. There are, however, some common directions of reform which are applicable to all branches of administration. The primary aim must be to ensure high standards of integrity, efficiency and speed in implementation. To an extent, speed in implementation and efficiency in individual processes are inter-related. It is however recognised that changes in organisation and procedures have to be supported by greater attention to the training of personnel, to supervision and reporting and evaluation. Nevertheless, without a concentrated attempt to make the administration much more action-oriented than at present, these measures may not yield enough results. For the execution of any programme or project, the primary need is to fix specific responsibility on the agency concerned and, within it, on particular individuals. Within defined limits, each individual should be given full responsibility and, with it, the necessary measure of support and trust. Consultations, which are at present too frequent and too concerned with detail and, therefore, impede effective action, should be reduced to the minimum and confined to broader matters. Exercise of financial control is an important aspect of this problem.

Success or failure should be judged by the test of results. To facilitate this, in the planning stage, care should be taken to specify the tasks to be undertaken, the means to be employed, the obligations of the various agencies and individuals concerned, and the time sequence in which different operations must flow and dovetail into one another.

In relation to Central Ministries and Secretariat Departments, whose main concern should be with matters of policy, general supervision and enforcement of standards, executive agencies should be strengthened and enabled to function on their own.

6. All targets should be worked out after careful study and should be further broken down into smaller units in terms of time schedules and responsibility for execution. Five-year targets should also be reassessed each year in the light of experience, and a further view taken regarding the likely future trends.

7. There are several directions in which material incentives can be useful, for instance, in industrial undertakings. But, besides these, there should be an increasing scope in administration for the development of non-material incentives, especially various forms of appreciation and recognition of worth, a sense of partnership in a common endeavour, and human relationship based on mutual respect and friendliness.

8. In the light of experience gained during the Second Plan, the following are the principal suggestions for increasing the speed and efficiency of implementation of projects in the public sector and securing greater economy in their construction and operation :

- (1) Large projects take considerable time to yield results and plans for them require careful preparation. In each field they should form part of a scheme of development stretching over a longer period, say, 10 to 15 years.
- (2) For a considerable number of projects included in the Third Plan, information available even at this stage leaves much to be desired. It is essential to undertake detailed studies well in advance of the time for the consideration and approval of projects. Work on the preparation of projects included in the Third Plan should be completed with the utmost speed. Project studies in relation to Fourth Plan should be taken in hand so that they are substantially completed in the course of the next three years.
- (3) The Central Ministries concerned with the industrial development should take early steps to organise well-equipped technical planning cells. Ministries might also consider maintaining panels of technical advisers for selected industries.
- (4) Major State undertakings should take steps to strengthen and, where necessary, set up suitable design and research units.



Wherever feasible, the preparation of new projects should be one of their primary responsibilities. This would enable technical planning cells in the Ministries to concentrate on the broader technical and economic aspects of the execution of the projects and on problems requiring coordination at the level of policy and administration.

- (5) The present arrangements for the scrutiny of cost estimates and examination of economic aspects of projects should be considerably strengthened. Each year the Ministry of Finance should be in a position to present a report appraising the financial and economic aspects of all industrial undertakings of the Central Government.
- (6) It is essential that in large projects, which have a long gestation period, work should be phased so as to provide a continuous flow of benefits at each stage in the Plan. This requires a high degree of coordination between different stages or parts of the same project as well as in related sectors. Coordination is needed both at the operational level and in the planning of parallel or complementary investments. To ensure the success of projects, there should be the utmost emphasis on advance planning, accurate estimates of the costs and continuous improvement in programme and techniques.
- (7) In large projects under the same overall management, there should be special units to assist the management in keeping down costs, raising productivity, setting norms and checking performance. In respect of large industrial and other projects with which they are concerned, the Central Ministries and States should review their existing arrangements for achieving these objects. The proposed units should function under the control of the top management authorities without, however, being involved in day to day operations.

9. In a planned economy, there must be the same concern in the private sector as in the public, for securing economies, utilising indigenous materials, saving on foreign exchange, outlays for maintenance of production as well as for development, accelerating exports, expanding employment and, generally, improving the quality of service. Development Councils should bring the best leadership in each industry to bear on the solution of common problems and the achievement of high standards of management and welfare. They should be enabled to enlarge their contributions in these directions.

## PERSONNEL

10. The main problem is one of developing personnel with the necessary outlook and experience which will ensure the success of the Third Plan. With this in view the following suggestions are offered in the Plan:

- (1) There are certain fields in which, for many years to come, personnel at the highest levels will be inadequate or experience of a specific character will not be sufficiently available. In these fields, in the interest of rapid development itself, it will be desirable for a period to arrange to supplement the available indigenous personnel.
- (2) One of the key tasks in every sector of the Third Plan is to build up competent managers who know their own job and have the ability to lead. For the most part, these men must be found from the middle grades of personnel within each organisation. Persons from these grades should be given a greater share of responsibility in day to day work and should have the opportunity of gaining experience in the higher functions of management. Along with this, within each project, it is essential to establish the practice of consultation and exchange of views as between different levels within the organisation as well as at each appropriate level.
- (3) Rapid transfers of officials engaged in important programmes injure both continuity of operations and the morale of organisations whose work at the present stage of development is nearly always of a difficult and pioneering character. In any major key assignment, a period of less than five to ten years is rarely sufficient for producing large results. To secure this, there should be no hesitation in assuring expectations of promotion to the individuals concerned.
- (4) Each large project in the public sector should have, wherever possible, a well organised training programme for apprentices, etc., supported by institutional training at polytechnics or other centres.

## ECONOMY IN CONSTRUCTION

11. In many fields of development, construction costs account for a substantial proportion of the expenditure. With attention to certain elementary prerequisites there is considerable scope for saving on construction works. The question of securing economies in construction has been considered in consultation with Central Ministries and State

Governments and there is general agreement on the measures to be adopted. These are set out in the Plan.

### IMPLICATIONS FOR PLANNING

12. In view of the large dimensions of the problems of management, planning and implementation in the Third Plan, it is necessary to take a fresh view of the ways in which the machinery and the process of planning at various levels may be improved, evaluation made more incisive, and planning equipped with better statistical and other tools. The following are the principal directions in which the existing schemes and organisation of planning may be strengthened:

- (1) Large projects in industry, transport, power and other fields have now an increasingly important place in national planning. The Planning Commission will endeavour to keep in touch with the working of these projects and assist Ministries and States with objective analysis and reporting from the wider consideration of the national economy as a whole. From this angle the Planning Commission's own work and that of the Committee on Plan Projects and the Programme Evaluation Organisation are being reviewed. It will be necessary to ensure close collaboration with various statistical agencies and to enlarge the scope of economic and social research.
- (2) In collaboration with Ministries and States considerable improvement will need to be effected in the present system of reporting upon projects.
- (3) The plans of States have a crucial role in fulfilling the economic and social objectives of the Third Plan. States will also participate in the drawing up of the long-term plan. Although, within limits of its tasks as conceived thus far, the machinery for planning in the States has served well, it will now be necessary for States to consider the lines along which the existing arrangements for planning at the State level should be further strengthened.
- (4) The introduction of Panchayati Raj places much greater responsibility upon Departments at the State level, technical and other officials at the district level and extension workers in the blocks. The success of the Plan, as of the Panchayati Raj itself, will depend upon a correct approach to various problems being adopted from the start both by the representatives of the people and the official agencies.

- (5) In the plans hitherto formulated urban areas have not been actively associated. It is envisaged that in the next phase of planning, as many towns and cities as possible, and, at any rate, those with a population of 100,000 or more, should come into the scheme of planning in an organic way, each city mobilising its own resources and helping to create conditions for a better life for its citizens. Preparation for this should begin early in the Third Plan.

#### PUBLIC COOPERATION AND PARTICIPATION

13. For a developing country which cherishes its democratic values and traditions of constructive work, the people's part in the attainment of social and economic objectives is of supreme importance. The concept of public cooperation is, in its wider aspect, related to the much larger sphere of voluntary action in which the initiative and organisational responsibility rest completely with the people and their leaders, and does not rely on legal sanctions or the power of the State for achieving its aims. Properly organised voluntary effort may go far towards augmenting the facilities available to the community for helping the weakest and the most needy to a somewhat better life. For securing fuller involvement of the people, their obligations and responsibilities in relation to specific development programmes should be made known in clear and precise terms. The transformation now occurring at the base in the rural areas as a result of Panchayati Raj will facilitate the fuller play of the knowledge and initiative of the people in dealing with the local development programmes.

14. The distinctive feature of public cooperation programme is the presence of the contribution of voluntary service on a considerable scale. The emphasis of voluntary services is now shifting from welfare to socio-economic activities. National programmes which require urgent attention are slum clearance and improvement, consumer co-operative stores, hospital welfare services, etc., in the urban areas; and literacy, mass education, strengthening of panchayats and service co-operatives and more active participation in other community development programmes in the rural areas. Voluntary agencies will also be assisted to take up construction works on river valley projects, smaller and local works, simple masonry works and supply of building material. Besides avoiding excessive dependence on contractors, this will lead to the utilisation of idle manpower, economy in construction costs and a better deal for labour and will make available additional resources for welfare activities.

15. The existing arrangements for creating better understanding and appreciation of the significance, objectives and priorities of the

- Plan should be intensified so as to promote widespread people's participation. The message of the Plan has to be carried to the masses throughout the country. •

• 16. In the context of public cooperation, there are certain higher tasks which are related to the basic needs, ideals and goals of the nation. In the present circumstances they create special obligations for the people. The foremost need now is that the attitudes of the people and the pattern of conduct, which prevail in the community, should be in harmony with the national purposes. In this there are three constituents: love of the nation and faith in its destiny, leading to consciousness of integrity and unity, progressive socialisation and cooperative growth as the basis of social and economic order, and right living. •

17. Since so much is expected of voluntary organisations, it is important that in their organisation and techniques they should become capable of discharging their tasks. To make effective use of the resources at their disposal, voluntary organisations must undertake advance planning, proper assessment of requirements, training of personnel, systematic execution and adequate supervision and evaluation. They should establish a relationship of intimate collaboration with local bodies and for certain purposes should act as agencies of municipalities, Panchayat Samitis, Panchayats, etc. The programmes should be framed jointly and the role and place of voluntary organisations clearly specified. Official agencies should assist, leaving the direction and control to the leadership of voluntary organisations. In this way alone these organisations can acquire a national character and make an appeal to all citizens irrespective of their political affiliations. Small units of voluntary workers meeting local needs should be encouraged and helped by the larger bodies. In the rural areas, the Lok Karya Kshetra which corresponds to the area of a community development block will offer a common platform for voluntary bodies and bring about the integration of their activities at the field level. The approach is now being extended to urban areas also.

18. University Planning Forums are expected to play an increasing role during the Third Plan, bringing universities and colleges into closer contact with the larger community and enabling teachers and students to contribute towards national development in constructive programmes.

## CHAPTER 12

### AGRICULTURE AND RURAL ECONOMY

#### INTRODUCTION

PROGRAMMES for the development of agriculture and the rural economy cover a wide field. Efforts to increase agricultural production lie at the base of the comprehensive approach to the reconstruction of the rural economy which is embodied in the Third Five Year Plan. Development of irrigation from large as well as small works, soil conservation programmes and supplies of fertilisers, improved seeds and credit, along with the provision of extension services reaching down to the village level, are measures undertaken directly to increase production. Through the community development movement, the energies of each village community as a whole are sought to be harnessed and its manpower and other resources effectively mobilised. Schemes of agricultural production are closely bound up with the success of animal husbandry and dairying and the development of fisheries and of rural industry. From the aspect of long-term development, care of forest wealth, conservation of soil and moisture and the growing of village fuel plantations are of great importance. The various programmes of cooperative development which have been undertaken and will be given still greater emphasis in the Third Plan are intended to build up the necessary institutional frame-work for rapid economic development in rural areas such as will be of special benefit to the weaker sections of the rural population. Land reform policies aim at removing impediments to greater production due to the agrarian structure inherited from the past and preparing the way for the development of a progressive agriculture organised on a cooperative basis. In the scheme of transformation of rural life, which is being implemented through successive Five Year Plans, a major question which stands out concerns the means to be adopted for bringing about improvements in the economic conditions of agricultural labourers and the removal of social disabilities from which they have suffered in the past. Different aspects of rural development are, thus, inter-related. Against this background it is proposed to outline briefly in this Chapter the proposals in the Third Five Year Plan relating to :

- I. Agricultural Production;
- II. Animal Husbandry, Dairying and Fisheries;
- III. Forests and Soil Conservation;

- IV. Community Development;
- V. Cooperation;
- VI. Land Reform; and
- VII. Agricultural Labour.

# I

## AGRICULTURAL PRODUCTION

### REVIEW OF PROGRESS

Over the First and the Second Plan the index of agricultural production (base=1949-50) rose to 135, the index of foodgrains being 132 and that for other crops 142. In the First Plan, agricultural production rose by about 17 per cent. During the Second Plan, two years out of five—1957-58 and 1959-60—were unfavourable, and the overall increase in agricultural production amounted to about 16 per cent. The following Table compares the revised targets for agricultural production announced in November, 1956, and the estimated production in the last year of the Second Plan :

commodity	unit	revised targets for Second Plan	estimated production 1960-61
foodgrains	million tons	80.5	76.0*
sugarcane (gur)	million tons	7.8	8.0
cotton	million bales	6.5	5.1
jute	million bales	5.5	4.0

In view of the production trends during the Second Plan it is of the highest importance that in the Third Plan, besides achieving self-sufficiency in foodgrains, substantial increases should be secured in commercial crops, specially cotton, oilseeds and jute.

2. Progress in carrying out various programmes of agricultural development during the Second Plan is summarised below :

programme	unit	estimated achievement
major and medium irrigation	million acres (gross)	6.9
minor irrigation	million acres	9.0
soil conservation in agricultural lands	million acres	2.0
land reclamation	million acres	1.2
area under improved seeds (foodgrains)	million acres	55
consumption of nitrogen (N)	thousand tons	230
consumption of phosphatic fertilisers (P <sub>2</sub> O <sub>5</sub> )	thousand tons	70
urban compost	million tons	3
rural compost	million tons	83
green manuring	million acres	11.8

\*Foodgrain production in 1960-61 is expected to be about 78 million tons when revised estimates of crop production become available.

In certain directions progress during the Second Plan was less than had been hoped for, notably in programmes requiring large-scale participation on the part of the people (such as soil conservation), in the supply of fertilisers, in early utilisation of the benefits of irrigation, and in intensive work at the field level. Consequently, a much larger task in agriculture remains to be accomplished during the Third Plan. More than any other factor, the success of the Third Plan will turn on the fulfilment of its agricultural targets.

### APPROACH TO THE THIRD PLAN

3. In formulating agricultural production programmes for the Third Plan, the guiding consideration has been that the agricultural effort should not be impeded in any manner for want of financial or other resources. Accordingly, finance is being provided on a scale which is considered adequate, and the further assurance is given that if, for achieving the targets of production, additional resources are found necessary, these will be provided as the Plan proceeds. Supplies of fertilisers are also to be made available on a large scale. Efforts are being made to strengthen agricultural administration in the States, and stress is being placed on the closest possible coordination between different agencies, notably those concerned with agriculture, cooperation, community development and irrigation. Supplies of credit through cooperative agencies are being expanded, and the need for linking credit with production and marketing is emphasised.

4. The central task of the community development organisation and of extension workers at the block and village levels is to mobilise the rural community for intensive agricultural development, to impart a sense of urgency and direction to the work of all the agencies operating on behalf of the Government, and to ensure that the requisite supplies, services and technical assistance are available at the right time and place and in the most effective manner possible. At the same time, the Agriculture Departments must place at the disposal of the community development organisation at the block level the supplies, trained personnel and other resources needed. This means that all families in the village, specially those engaged in cultivation, must be involved in the agricultural effort through the village co-operative, and the panchayat, and enabled to achieve larger results through village production plans. There is also urgent need to improve the organisation of agricultural programmes at the local level as well as higher levels in the States and at the Centre.

5. The Third Plan provides for a total outlay of Rs. 1281 crores



for agricultural programmes compared to Rs. 667 crores in the Second Plan :

Outlays on Agricultural Production

	(Rs. crores)	
	Second Plan	Third Plan
agricultural production	98·10	226·07
minor irrigation	94·94	176·76
soil conservation	17·61	72·73
cooperation	33·83	80·10
community development (agricultural programmes)	50·00	126·00
major and medium irrigation	372·17	599·34
total	666·65	1281·00

In addition, short-term and medium-term loans amounting to Rs. 530 crores and long-term loans (amount outstanding) of Rs. 150 crores are expected from cooperative agencies.

PROGRAMMES OF DEVELOPMENT

6. The main targets under different development programmes for agriculture are summarised below :

Targets of agricultural programme : Third Plan

programme	unit	target
I. irrigation		
1. major and medium irrigation (gross)	million acres	12·8
2. minor irrigation (gross)	million acres	12·8
(a) agriculture	million acres	9·5
(b) community development	million acres	3·3
total		25·6
II. soil conservation, land reclamation, etc.		
(a) soil conservation on agricultural lands	million acres	11·0
(b) dry farming	million acres	22·0
(c) land reclamation	million acres	3·6
(d) reclamation of saline and alkaline lands.	million acres	0·2
III. additional area under improved seeds—— foodgrains.	million acres	148·0
IV. consumption of chemical fertilisers		
(a) nitrogenous (N)	thousand tons	1000
(b) phosphatic (P <sub>2</sub> O <sub>5</sub> )	thousand tons	400
(c) potassic (K <sub>2</sub> O)	thousand tons	200
V. organic and green manures		
(a) urban compost	million tons	5·0
(b) rural compost	million tons	150·0
(c) green manuring	million acres	39·0
VI. plant protection	million acres	50·0

The various programmes mentioned above have to be implemented with the largest measure of participation on the part of local communities and as many families as possible have to be reached through

village production plans. Specially intensive development work will be undertaken in 15 districts which have been selected because of their favourable conditions.

7. The Plan lists in respect of each of the programmes mentioned above the principal shortcomings encountered during recent years and suggests the lines along which work during the Third Plan should be organised. In respect of the minor irrigation programmes, the aspects emphasised include the need to develop minor irrigation as a community programme in which local contributions in money and labour play a large part, the importance of systematic surveys and investigations, the need to place certain obligations by law on local communities and beneficiaries for the maintenance of minor irrigation works, and reduction of time lags between completion of works and realisation of their benefits. Much greater stress has to be laid in the Third Plan on the development of local manurial resources, specially organic manures.

An important gap in the agricultural programmes undertaken during the First and Second Plans has been in the field of improved agricultural implements. Progress in the introduction of improved agricultural implements calls for steps in a number of directions. The more important directions in which action has to be taken by the concerned agencies relate to :

- (i) adequate supply of iron and steel of the categories required for agricultural implements;
- (ii) establishment of research, testing and training centres for improved agricultural implements in every State;
- (iii) suitable extension arrangements by State Governments at district and block levels for demonstrating and popularising improved agricultural implements;
- (iv) strengthening of agricultural engineering sections of State Agricultural Departments; and
- (v) assured arrangements for credit for supply of improved implements and establishment of agricultural workshops at all the extension training centres.

#### • ESTIMATES OF PRODUCTION

8. The following estimates of the likely production by the end of the Third Plan have been worked out in relation to the various development programmes which are to be implemented :

### Estimates of production in the Third Plan

commodity	unit	level of production 1960-61	of additional production 1961-66	production in 1965-66	percentage increase
foodgrains	million tons	76.0	24.0	100.0	31.6
oilseeds	million tons	7.1	2.7	9.8	38.6
sugarcane (gur)	million tons	8.0	2.0	10.0	25.0
cotton	million bales	5.1	1.9	7.0	37.2
jute	million bales	4.0	2.2	6.2*	55.0
coconut	million nuts	4500	775	5275	17.2
arecanut	thousand tons	93	7	100	7.5
cashewnut	thousand tons	73	77	150	105.5
pepper	thousand tons	26	1	27	3.9
cardamom	thousand tons	2.26	0.36	2.62	15.9
lac	thousand tons	50	12	62	24.0
tobacco	thousand tons	300	25	325	8.3
tea	million lb	725	175	900	24.1
coffee	thousand tons	48	32	80	67.7
rubber	thousand tons	26.4	18.6	45	70.5

These increases in production involve raising the yield per acre to a significant extent—about 27.5 per cent above the Second Plan average for rice, about 20 per cent for wheat, about 11 per cent for oilseeds, about 14 per cent for cotton, about 16 per cent for jute and 18 per cent for sugarcane. The greater part of these increases in yields will necessarily have to be secured in areas under irrigation and assured rainfall, but even in other areas, through soil conservation and dry farming, there should be some improvement in the average yield.

According to the estimates given above the index of agricultural production should rise from 135 in 1960-61 to 176 in 1965-66, the total increase being about 30 per cent over the five year period. Per capita availability of foodgrains is expected to rise from 16 ounces in 1960-61 to 17.5 ounces in 1965-66 and consumption of cloth from about 15.5 yards to 17.2 yards per year. Consumption of edible oils is expected to go up from 0.4 ounces to 0.5 ounces per day over the Third Plan period.

#### OTHER ASPECTS OF THE AGRICULTURAL PROGRAMME

9. In the Third Plan it is essential to intensify efforts for increasing the production of commercial crops, specially cotton, jute and oilseeds. Detailed programmes for these crops have been worked out by the various commodity committees. Adequate finance and supplies of fertilisers are to be made available for these crops and for plantation crops, specially tea, coffee and rubber. The Plan also provides for a series of related agricultural programmes such as production of fruits and vegetables and subsidiary foods.

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\*Excludes mesta which may provide an additional 1.3 million bales.

10. At present over 725 out of a total of 2500 markets in the country are regulated. In the Third Plan, the remaining markets will be brought within the scheme of regulation, and the number of reporting centres under the market intelligence service, which now covers about 500 markets, will be considerably extended.

The total storage capacity at the disposal of Government is to be raised from about 2.5 million tons at present, of which about a third is owned by Government, to about 5 million tons, of which about 3.5 million tons will be owned by Government. Storage capacity with the warehousing corporations will be increased from about 350,000 tons to over 1.6 million tons and the capacity of the godowns of cooperative societies from about 800,000 tons to about 2 million tons.

11. The number of agricultural colleges is to be increased from 53 to 57 and the annual intake from 5600 to 6200. Proposals for setting up agricultural universities on the lines of the university already established in Uttar Pradesh are under examination. The programme of agricultural research includes strengthening of research organisations in the States, development of research on a regional basis, establishment of new institutes for soil science and pedology, research in forage and grasslands, virus research, and the intensive study of irrigation practices and problems connected with the use of fertilisers in irrigated areas. Proposals relating to the strengthening of agricultural administration in the States need to be implemented as a matter of first priority. It is also proposed to set up one and possibly two more State mechanised farms on the lines of the State Farm at Suratgarh.

12. The assurance of minimum remunerative prices for important cereals and cash crops like cotton, oilseeds and jute over the period of the Plan will provide the necessary incentive for increasing production, thus adding to the effectiveness of the various development programmes provided for in the Third Plan. With this object in view, decisions regarding the prices at which Government should buy and sell should be taken sufficiently in advance of the sowing season.

## II

### ANIMAL HUSBANDRY, DAIRYING AND FISHERIES

The urgent need for expanding the production of supplementary and subsidiary foods, especially proteins, greatly enhances the importance of programmes for the development of animal husbandry, dairying and fisheries during the Third Five Year Plan.

### ANIMAL HUSBANDRY

2. Development of animal husbandry is envisaged as an integral part of a sound system of diversified agriculture. Emphasis will be laid on mixed farming for better utilisation of farm bye-products, maintenance of soil fertility, fuller employment for agriculturists throughout the year and increase in rural incomes. The Third Plan provides Rs. 54 crores for the development of animal husbandry compared to about Rs. 21 crores in the Second.

3. India has a large livestock population but their productivity is generally low. Thus, the average milk yield per lactation of cows is about 400 lb and that of buffaloes about 1100 lb as compared to 5000 lb or more in advanced countries. The total milk production, which is at present reckoned at about 22 million tons, is expected to go up to about 25 million tons by the end of the Plan. The basic policy is to evolve and develop 'dual purpose' breeds which will provide both good bullocks for efficient cultivation and increased yields of milk for human consumption.

4. In the first two Plans, the key village scheme has been the main programme for intensive cattle development. The scheme has been recently reviewed carefully. It is proposed to intensify the castration programme in key village areas, expand facilities for the rearing of bull-calves, and give special attention to better use of the existing fodder resources and to the cultivation of fodder crops on marginal and sub-marginal lands. It is also proposed as an experimental measure to undertake cross-breeding with exotic breeds in regions of high altitude with heavy rainfall and to set up a farm with a nucleus herd of jersey animals. The progeny testing scheme is to be introduced progressively for all important breeds.

5. In the main breeding tracts, breeding societies are to be encouraged. These will provide for registration of cattle and recording of milk yields and will serve as a source of supply of breeding bulls required for other areas. To meet the shortage of breeding bulls, in addition to extension of artificial insemination, it is proposed to set up 11 bull rearing farms in the breeding tracts, subsidise the rearing of about 30,000 bull-calves, expand the herds at 33 existing Government cattle breeding farms and establish a number of new livestock farms.

6. The seriousness of the problem of surplus and uneconomic cattle is widely recognised, although estimates of the numbers of such cattle vary. Large numbers lead to poor feeding and poor feeding comes in the way of attempts to raise productivity. Weeding of

inferior stock is a necessary complement to a programme of cattle improvement and systematic breeding. It is proposed to set up 23 more gosadans in addition to the 59 already established, but this programme presents real difficulties, of which the most important is the non-availability of suitable sites in the interior of forest areas where the necessary grazing facilities are available. With a view to elimination of scrub male stock, it is proposed to undertake a large-scale programme of castration during the Third Plan. Mass castration work will be initiated first in areas in which intensive livestock development programmes have been taken up and extended later to other areas.

7. By the end of the Third Plan there will be 8000 veterinary hospitals and dispensaries. The entire bovine population of the country will be vaccinated against rinderpest by 1963-64.

8. Among other programmes to be undertaken are the establishment of two regional pig breeding-cum-bacon factories, 12 piggery units and 140 piggery development blocks. An equine breeding farm with 10 stud centres will be established. The setting up of a national stud, cooperative breeding schemes, and private studs are under consideration. To improve the quality of wool and develop the local sheep breeds, it is proposed to establish 15 sheep breeding farms and to expand 17 existing farms. As a result of the various measures to be adopted it is expected that the present production of 72 million lb of wool will go up to 90 million lb by the end of the Third Plan. The programme for the development of poultry includes the expansion of 60 State poultry farms, three regional poultry farms and 50 extension-cum-development centres.

9. It is proposed to undertake a large-scale programme for the better collection of fallen hides and for improved flaying. This involves timely recovery of carcasses and full utilisation of bye-products, tanning of hides and skins by improved methods, and the provision of adequate training facilities at selected centres. It is proposed to set up one large and 14 small hide-flaying curing and carcass utilisation centres, two mobile bone crushing units and a regional training centre in hide flaying, curing and carcass utilisation.

10. The Central Council of Gosamvardhana was reorganised in 1960. The Council has been assigned a special role in coordinating activities relating to the preservation and development of cattle, specially the cow and, amongst other activities, will arrange for training centres for goshala and charamalaya workers. In the Third Plan it is proposed to assist 168 goshalas to develop as cattle breeding-cum-milk production units.

11. During the Second Plan five veterinary colleges were expanded and three new ones established. In the Third Plan, two new veterinary colleges are to be set up. Arrangements are also to be made to train about 70,000 stockmen.

#### DAIRYING AND MILK SUPPLY

12. The dairy industry in India is faced with several problems, such as scattered and small-scale milk production, inadequate transport facilities in most parts of the country, dependence on imported plant and machinery required for milk collection, processing and manufacturing, shortage of technical and skilled personnel and lack of properly organised systems of marketing. Efforts have to be directed towards the collection of surplus milk from rural areas on an organised basis and the development of assured supply of good quality milk and milk products at reasonable prices to consumers.

13. The policy to be pursued in regard to dairying is to develop dairy projects with greater emphasis on milk production in the rural areas linked up with plans for marketing of surplus milk in the urban areas. Supply and collection of milk will be the function of a network of producers' cooperatives in the villages. The processing and distribution of milk and manufacture of milk products will be organised through plants operating as far as possible on cooperative lines. In addition to development aimed at in the public sector, manufacture of milk products is also proposed to be encouraged in the private sector.

14. During the Third Plan, 55 new milk supply schemes will be taken up in cities with a population exceeding one lakh and in growing industrial townships. For developing rural milk pockets, 8 creameries, 4 milk powder factories and 2 cheese factories will be set up. In the vicinity of large milk supply plants, 4 cattle feed compounding factories will also be established. A provision of about Rs. 36 crores has been made for dairy development in the Third Plan. To give an impetus to dairy programmes, arrangements will be made for the manufacture of dairy equipment and machinery within the country.

15. It is envisaged that dairy programmes will be effectively interwoven with the economy of the surrounding villages with a view to promoting the policy of encouraging the development of 'dual purpose' animals. With this end in view, loan assistance for purchase of milch animals will be directed towards the fulfilment of the breeding policy. In order to promote good breeds of cows, to the extent feasible, cow's milk should be purchased by plants at the same price as buffalo milk.

16. The National Dairy Research Institute, Karnal, will be expanded during the Third Plan. Training facilities for the Indian Dairy Diploma at Bangalore, Allahabad, Anand and Aarey and for B.Sc. (Dairying) at Karnal will be expanded. A Dairy Science College will be established at Anand in Gujarat.

#### FISHERIES

17. The aquatic resources of Indian waters are varied and abundant. Fishing and allied industries provide employment for about a million fishermen, most of whom live on the verge of poverty. The main objective in drawing up fisheries schemes for the Third Plan has been increased production, and the need to improve the economic conditions of fishermen has been kept in view. Emphasis has also been placed on the development of export trade.

18. Large-scale expansion of inland fisheries has now become possible in view of the technique of induced breeding by hormone treatment which has been successfully developed on Indian carps. This is a major development which will enable spawn and fry to be bred in any part of the country independently of the naturally spawning areas. Another important development has been the introduction of the 'common carp' from South-East Asia which is a useful addition. About 50,000 acres of water in different States will be used as demonstration fish farms. It is proposed to stock 1200 million fry and fingerlings. Regular stocking will also be done in river valley projects which offer considerable scope for fishery development. Panchayat Samitis and Panchayats should undertake the development of fish ponds and other inland waters as a vital local resource.

19. The formation and running of fisheries cooperatives is an important aspect of fisheries development during the Third Plan. There are at present about 2100 fisheries cooperatives with a total membership of about 220,000. Fisheries cooperatives function with varying degrees of success and only about 800 of them can be said to show satisfactory performance. Revitalisation of the existing fisheries cooperatives and their further development and linking up with marketing and processing cooperatives is an important task to be carried out in the Third Plan. A detailed programme for this purpose is proposed to be worked out.

20. About two-thirds of the country's estimated fish production comes from the sea. In the Third Plan it is proposed to introduce 4000 new mechanised crafts. The exploratory fishing programmes of the existing four Central Deep Sea Fishing Stations will be expanded and additional units will be established. It is also proposed to operate



35 large vessels and to provide landing and berthing facilities for fishing at 16 ports.

21. Fish being a highly perishable commodity, adequate facilities for marketing are absolutely essential. It is proposed to have 72 ice and cold storage plants distributed in different States, to facilitate movement of fish in good condition to consuming centres. About 20 new refrigerated vans are proposed to be introduced on the main routes. The production of fish is expected to increase from 14 lakh tons to 18 lakh tons. Exports of fish are expected to go up from about Rs. 6 crores to about Rs. 12 crores. About Rs. 29 crores have been allotted for the development of fisheries in the Third Plan.

22. New investigations on oceanic fisheries, oceanographic studies, high altitude fisheries, fresh water prawns, back water fisheries, etc., will be taken up. A fisheries training institute for fisheries administrative personnel at district level has started functioning. An institute for training operatives in fisheries at various levels will be established at Cochin. The total requirements of persons to run different fisheries development projects during the Third Plan are estimated at about 2100. Arrangements for their training have been provided for.

### III

## FORESTS AND SOIL CONSERVATION

### FORESTS

Development of forest resources is an integral part of the programme for optimum land utilisation. In India forests have important protective as well as productive functions.

While the area under forests is only about 22 per cent of the country's land surface as compared to the one-third considered desirable, the demand for various forest products, both for industrial uses and for domestic purposes, has been steadily increasing. The requirements of industrial wood, including pulp material, are at present estimated at 4·5 million tons, and are expected to increase to about 9·5 million tons by 1975. The demand for paper and rayon grade pulp is likely to expand considerably with growing population, increasing literacy and rising standards of living. Unless very special efforts are made, production may not increase beyond 5·5 million tons by 1975, so that there may be a gap in 1975 of as much as 4 million tons. The shortage in firewood may rise to 100 million tons.

2. During the First and the Second Plans, new plantations of matchwood extending over an area of about 55,000 acres and of industrial timber over an area of about 330,000 acres were undertaken. Survey and demarcation was undertaken over about 18,000 square miles, 9000 miles of forest roads were developed and about 400,000 acres of degraded forests were rehabilitated. Improved methods of logging were also demonstrated.

3. In the Third Plan special emphasis will be put on measures which will help meet the long-term requirements of the country and also ensure more economic and efficient utilisation of the available forest products, including inferior timber and various wood residues and pulp material in the near future. The immediate objective is to increase the output through better techniques of timber extraction, to develop forest communications and to bring about better utilisation through the increased use of preservation and seasoning processes. The Plan provides an outlay of Rs. 51 crores for various development programmes.

4. A large-scale programme of new plantations is essential for meeting the increasing requirements of industry. These plantations should comprise not only the traditional species of timber with long periods of maturity but also fast growing species with a comparatively short rotation. In the Third Five Year Plan the programme for new plantations will cover about 700,000 acres including teak, matchwood, bamboo, wattle, casurina, etc. An additional programme for planting 300,000 acres with fast growing species of industrial wood is also proposed to be taken up.

5. It is estimated that an area of over 1.2 million acres will come under farm forestry during the Third Plan. Panchayat Samitis and Panchayats should be assisted to take up this programme on a large scale, and Forest Departments should ensure that seeds and saplings are available in each area. Programmes for planting trees along national and State highways, canal banks and railway tracks should also be intensified.

6. Improved logging tools can help reduce wastages and increase the utilisation of wood. The staff of Forest Departments in several States have been trained in their use. Work on improved implements is also being undertaken at the Forest Research Institute, Dehra Dun. Some of the rich forests at higher elevations in the Himalayas remain untapped or are only partially exploited. This is mainly due to their inaccessibility. To ensure better utilisation the Plan provides for the development of about 15,000 miles of forest roads, and for the linking up of forest roads with trunk roads and river landings.

7. Secondary species of timber can be used as a substitute for the scarce primary timber after proper seasoning and treatment. The Plan provides for the setting up of about 27 seasoning and 3 seasoning-cum-preservation plants. It is important that high grade timber should be reserved for uses which are valuable and for which adequate substitutes are not available.

8. Survey and demarcation work is proposed to be taken up over an area of about 43,000 square miles. Rehabilitation work on such areas as were surveyed and demarcated previously will be extended to about 600,000 acres.

9. A project for a comprehensive pre-investment survey of forest resources and industries has been included in the Third Plan. The main object of this survey is to facilitate the formulation of the long-term programme for planting quick growing species, for opening up forest regions in the interior and for assessing the economic prospects of forest-based industries. The pre-investment survey will also take into account the requirements of different industries over the next 15 years or more. The survey is intended to be followed up by detailed programmes for the improvement of transport facilities, setting up of integrated wood utilisation units of saw milling, board manufacture, etc. Measures taken in the light of the survey should assist in filling the gap between the availability of timber and other forest products of economic value and the demand for these products.

10. Three regional research stations will be established to supplement the work done at the Forest Research Institute, Dehra Dun. Extensive studies will be made at these centres on the strength, durability and economic use of the various species of wood. Investigations will also be made on factors affecting the yield of valuable products, such as sandal, agar, etc. Experiments will be conducted on the utilisation and raising of various kinds of canes and bamboos which can be put to diverse uses.

11. It is estimated that 480 officers and 1520 rangers will have to be trained for the different State Forest Departments. The rate of admission in the existing institutes at Dehra Dun and Coimbatore will be raised accordingly. The States will provide facilities for training 10,000 field personnel such as Foresters and Forest Guards.

12. Nature conservation is an important aspect of forest development and includes the protection and proper management of indigenous flora and fauna. The Plan includes a programme for the development and establishment of 5 zoological parks, 5 national parks and 10 wild

life sanctuaries. The Delhi Zoological Park is also to be developed further.

13. It is proposed to organise forest labourers into forest labour cooperative societies and give these societies suitable concessions. Provisions have also been made in the State plans to offer facilities for housing, medical aid, water supply and primary education to these classes.

14. Public cooperation has a vital role in forest development. Whether trees are planted by people or by government agencies, their care and protection can only be secured if the people as a whole are conscious of the value of trees and endeavour to preserve them. Village fuel plantations are important community assets and village communities should be helped to create them for themselves and, progressively, greater responsibility for managing forests should be placed on Panchayat Samitis and Panchayats.

#### SOIL CONSERVATION

15. It has been estimated that about 200 million acres of land suffer at present from soil erosion. Effective steps need to be taken to plan and undertake soil and moisture conservation measures on a large scale.

16. Contour bunding and terracing of about 700,000 acres of agricultural lands was undertaken during the First Plan. Eight regional research-cum-demonstration centres were established to study the problems of soil and water conservation. In addition, the Desert Afforestation and Research Station was set up at Jodhpur to undertake the study of desert problems. In the Second Plan, contour bunding and terracing made good progress and the target of 2 million acres has been achieved. An integrated all-India soil conservation and land use survey was also initiated and about 12 million acres have been surveyed, of which about 2 million acres were in the catchment areas. With a view to popularising dry farming techniques, 40 projects for giving demonstration on catchment basin during the last two years of the Second Plan were sanctioned. Work has already begun on some of these projects and will be further extended during the Third Plan. Research work carried out at the various research centres has yielded valuable practical results. Techniques were developed to stabilise the moving sand dunes and about 1800 acres were stabilised. The Desert Afforestation and Research Station at Jodhpur was reorganised as a Central Arid Zone Research Institute in collaboration with UNESCO. A scheme for pasture development was started in Rajasthan and about 50 paddocks in 18 extension blocks have been developed so far.

## AGRICULTURE AND RURAL ECONOMY

17. For the development of agricultural resources, it is necessary that large-scale soil conservation and dry farming programmes should be taken up on the basis of mass participation by rural communities. In the Third Plan, about 11 million acres of agricultural lands will be covered by contour bunding and about 22 million acres will be benefited under dry farming techniques.

18. Soil conservation measures in the catchment areas of major river valley projects are considered very urgent on account of the large investments made on them. About 15 million acres need to be treated eventually with soil conservation measures. During the Second Plan about 140,000 acres were covered under these measures. An allocation of Rs. 11 crores has been made in the Third Plan for extending this programme to another million acres.

19. A potent cause of deterioration of irrigated lands is the rise in sub-soil water level and the development of saline (usar) and alkaline soils. The damage to soil is likely to increase with the increasing use of irrigation. Provision for drainage in areas affected by waterlogging is therefore essential. A target of about 200,000 acres has been proposed during the Third Plan for reclaiming waterlogged, saline and alkaline lands.

20. It is proposed to undertake survey and preparation of topographical maps of the ravine areas which would facilitate the formulation and execution of reclamation projects. During the Third Plan 40,000 acres of ravine land will be reclaimed in the affected States.

21. The Central Arid Zone Research Institute has taken up research for tackling the desert areas and various related problems. A pilot project is also proposed to be undertaken to study the methods of reclaiming desert lands. It is proposed to bring about one lakh acres of desert areas under suitable soil conservation measures including afforestation and pasture development in the different States.

22. Hilly areas, denuded forests and waste lands pose a serious problem. Soil erosion taking place in these areas has an adverse effect on agriculture in the hills and in the plains. Overgrazing, shifting cultivation and indiscriminate felling of trees have led to this situation. To control soil erosion and to restore productivity, for normal utilisation, afforestation and pasture development will be extended to about 700,000 acres covering hilly areas, denuded forests and waste lands.

23. During the Third Plan it is proposed to survey an area of over 15 million acres, most of which lies in the catchment areas of river valley projects. The regional research-cum-demonstration centres set up

by the Central Soil Conservation Board at Dehra Dun, Chandigarh, Kotah, Vasad, Agra, Bellary, Ootacamund, Chhatra and Jodhpur would be strengthened to study the regional soil erosion problems. Two more centres, one each in Orissa and Andhra Pradesh, for studying the problems of red soil areas will be set up. The Central Arid Zone Research Institute will undertake research on fundamental and applied problems of the arid zones. To stabilise the drifting sands of the desert, a pasture development scheme is also in progress.

The additional requirements of personnel during the Third Plan are estimated at about 350 officers, 1700 assistants and 9000 sub-assistants. Consistent with these requirements, the existing facilities for training are being suitably expanded.

24. In view of the great importance of soil conservation in river valley projects where costly projects have been executed, and in dry areas, it would be necessary to establish in each State a soil conservation organisation, which may be a department or a wing of an existing department, according to its requirements, with responsibility for initiating planning and executing soil conservation programmes. Coordination between the various departments concerned should be ensured.

25. In the execution of the soil conservation programmes, such as contour bunding and dry farming, the aim should be to have, on as large a scale as possible, the participation of the people by encouraging owners and users of land to take up such measures to the extent possible on a voluntary basis. Mobilisation of local leadership for securing adequate and timely public participation will go a long way in speeding up the soil and water conservation programme.

26. The introduction of suitable legislation empowering State Governments to frame soil conservation schemes for the basin of a river or a stream or for groups of villages has been recommended. If a work is not carried out by the beneficiaries concerned it may be carried out by the Government or on its behalf by the Panchayat Samiti in the block and the cost recovered from them. Legislation on these lines already exists in some of the States and other States are proposing to undertake similar legislation.

#### IV

#### COMMUNITY DEVELOPMENT

The community development programme now serves over 3100 development blocks comprising 370,000 villages. Of these about 880 blocks have completed more than five years and entered the second stage of the community development programme. By October, 1963, the

programme will extend over the entire rural area of the country. The total outlay on community development in the first two Plans has been about Rs. 240 crores. The Third Plan provides for a total outlay of Rs. 294 crores, in addition to about Rs. 28 crores for Panchayats.

In the course of the Second Plan, three important developments occurred in the community development programme. These were (1) merging of the former national extension and community development patterns into a single scheme of community development, (2) introduction of Panchayati Raj, and (3) treatment of the block as the unit of planning and development.

2. Within the general framework of the district plan, the block plan is intended to include all social and economic activities undertaken within the block which call for (a) planning initiated locally at the block and village levels, and (b) coordination with the plans of various Departments which are implemented within the block. The following are the principal types of activities which will fall within the block plan :

- (i) items in the schematic budget of the community development block according to the stage reached;
- (ii) items included in the budgets of different Departments which can be executed through the block organisation;
- (iii) works undertaken by the local community or beneficiaries in accordance with the obligations laid down by law;
- (iv) works involving unskilled and semiskilled labour undertaken in the block; and
- (v) other activities undertaken in the block or by the block organisation with a view to securing greater contribution from local communities in respect of development schemes in different fields.

3. The basic problem in the rebuilding of the rural economy at present is the organisation of the agricultural effort at the village level. The Third Plan envisages formidable tasks in the fields of Agriculture and Cooperation. In the measure in which progress is achieved in mobilising the village community for increasing production, every other problem in the rural areas becomes easier of solution and more intensive development can be undertaken in other directions, especially rural industry and provision of social services. The growth of agricultural production is of such critical importance that in the immediate context of the Third Plan, the principal test to be met by the community development movement must be its practical effectiveness as an agricultural

extension agency. It is, therefore, essential for the community development organisation to take all steps necessary to strengthen itself in this respect, and to accept responsibility for achieving the targets of agricultural production on the basis of the largest possible local effort. At the same time, it is incumbent on the Agricultural Departments and other Departments concerned with agricultural production that they must place at the disposal of the community development organisation at the district and block levels, the necessary expert supervision and guidance and the supplies, trained manpower and the other resources needed.

4. The principal means for involving all cultivators in the village in the agricultural effort and mobilising effectively the resources of the local community is the village production plan. In the field of extension, the most important task to be undertaken in pursuance of the Third Plan is to give effect to the idea of working out village production plans, which have not yet been established as a normal method of work in agricultural development. The village production plan includes two main groups of programmes, namely, (a) supply of credit, fertilisers, improved seeds, assistance for plant protection, minor irrigation, etc., for which a measure of assistance has to come from outside the village, and (b) programmes such as the digging of field channels for utilising irrigation from large projects, maintenance of bunds and field channels, contour bunding, digging and maintenance of village tanks, development and utilisation of local manurial resources, village fuel plantations, etc., which call for effort on the part of the village community or the beneficiaries. The enthusiasm and cooperation from the village community in the second group of programmes will largely depend on the efficient organisation of supplies, credit, etc., and the quality of the technical advice given by extension workers. The Third Plan already provides for the various elements required for the successful execution of the village production plans.

#### PANCHAYATI RAJ

5. The significance of Panchayati Raj lies in the fact that subject to guidance and supervision by the State Government, responsibility for the implementation of rural development programmes will now belong to the Block Panchayat Samiti working with Panchayats in the villages and Zila Parishads at the district level. The primary object of Panchayati Raj is to enable the people of each area to achieve intensive and continuous development in the interest of the entire population. The elected representatives should be encouraged to value the development of Panchayati Raj as offering new avenues of service to



the people rather than opportunity for the exercise of authority. Panchayati Raj comprehends both the democratic institutions and the extension services through which development programmes are executed. Extension personnel at the block and village levels, although functioning within the jurisdiction of the Panchayat Samiti, form part of a larger administrative and technical network, which extends to the district and even beyond it. It is vital to the permanent success of Panchayati Raj that the integrity of the structure of technical and administrative services provided by Government and their ability to fulfil the duties and responsibilities cast upon them should be fully ensured, while their knowledge and experience are made available to the elected bodies at the district and block levels. The distinct role of federal cooperative organisations functioning at the State and district levels, as in the field of banking, marketing, processing, distribution, and education and training should be clearly recognised, and cooperatives should be enabled to fulfil their obligations in accordance with the approach and principles of the cooperative movement.

6. The following are among the main tests by which the success of Panchayati Raj will need to be measured from time to time :—

- (1) agricultural production as the highest national priority during the Third Plan;
- (2) development of rural industry;
- (3) development of cooperative institutions;
- (4) full utilisation of the local manpower and other resources;
- (5) development of facilities for education and adult literacy;
- (6) optimum utilisation of resources available to Panchayati Raj institutions such as finance, personnel, technical assistance and other facilities from higher levels, and efforts by them to raise their own resources;
- (7) assistance to the economically weaker sections of the village community;
- (8) progressive dispersal of authority and initiative with special emphasis on the role of voluntary organisations;
- (9) understanding and harmony between elected representatives and public servants to be achieved through comprehensive training in education and a clear demarcation of duties and responsibilities and progressive increase in competence both among officials and non-officials; and

(10) cohesion and mutual self-help within the community.

7. From the limited experience gained thus far, the following suggestions are offered for ensuring the effective and successful working of Panchayati Raj institutions:

- (1) while developing institutions at the higher levels, the greatest stress should be laid on the work of the Gram Sabha and the Panchayat at the village level;
- (2) technical officers at the district level should make their advice and assistance available to block extension officers and the Panchayat Samitis;
- (3) extension officers in the block should continue to function as a team under the leadership of the Block Development Officer and should participate actively in formulating schemes for the consideration of Panchayat Samiti;
- (4) emphasis should be given to preparation and implementation of well-conceived block plans;
- (5) guidance to Panchayati Raj institutions from technical Departments at the State level; and
- (6) the Collector has to ensure coordination at the district level between the Zila Parishad and technical officers in different fields, close contacts between the latter and the Panchayat Samitis and the extension officers at the block level and a continuing flow of technical advice and guidance from departments at the State level. He should assist democratic institutions and the public services in developing the right conventions in day to day work and in administrative relationships based on recognition of their distinctive contribution in fulfilling the common objectives.

8. The introduction of Panchayati Raj raises the wider question of the reorganisation of district administration. In many districts, the following organisations are working on parallel lines with their activities largely uncoordinated:

- (i) the revenue administration which looks after certain specific development functions, such as taccavi advances, recoveries, etc;
- (ii) the established Development Departments at the district, taluka and other levels;

(iii) the community development organisation with block officers and village level workers, linked at the village level with Panchayats and cooperatives; and

(iv) Local Boards (where these have not yet been abolished).

Some measure of rationalisation and fresh definition of functions and relationships are now necessary.

#### WEAKER SECTIONS AND THE PROBLEM OF EMPLOYMENT

9. The problem of the welfare of the weaker sections should be seen in the broader context of development within the rural economy, for, in a sense, a large part of the village community consists of those who may be described as being economically weak. The main weaknesses of the present village economy are low income, low productivity and lack of continuous employment. Without the rural economy as a whole developing rapidly enough, it is difficult to solve the problem either of the community in the village or of its weaker sections. The essential aim has been to bring about a more productive agricultural economy and a larger range of non-agricultural occupations in the village so as to increase production and employment and, at the same time, much greater attention should be given in all activities to the needs of the less-privileged sections.

10. The community development and Gramdan movements have certain common objectives. These include acceptance by the village community of responsibility for the welfare, employment and livelihood of all its members. This is of the greatest importance from the point of view of the weaker sections in the village.

11. The block organisation can render useful service by assisting the implementation of the land reform legislation which has been already enacted by creating public opinion and educating the people in their rights and obligations. Other measures which the block organisation can take to the immediate advantage of the weaker sections of the population are to increase subsidiary employment in the villages, raise the productivity of village industries and of village artisans, organise labour cooperatives and promote the fullest possible utilisation of the manpower resources of the area. The programme of rural works leading to employment opportunities by the last year of the Third Plan for about 2.5 million persons, specially during the slack agricultural seasons, will be implemented to a large extent through community development organisations. The programme will be extended first to areas with heavy pressure of population and considerable under-employment, and later to other areas.

## V

## COOPERATION

## COOPERATION AND PLANNED DEVELOPMENT

In a planned economy pledged to the values of socialism and democracy, cooperation should become progressively the principal basis of organisation in many branches of economic life, notably in agriculture and minor irrigation, small industry and processing, marketing, distribution, supplies, rural electrification, housing and construction, and the provision of essential amenities for local communities. Even in medium and large industries and in transport, an increasing range of activities can be undertaken on cooperative lines. Thus, a rapidly growing cooperative sector, with special emphasis on the needs of the peasant, the worker and the consumer, becomes a vital factor for social stability, for expansion of employment opportunities and for rapid economic development.

2. Economic development and social change are equally vital elements in the reconstruction of India's social and economic structure. Cooperation is one of the principal means for bringing about changes of a fundamental nature within the economy. As was stated in the Second Plan, in a country whose economic structure has its roots in the village, cooperation is something more than a series of activities organised on cooperative lines; basically, its purpose is to evolve a scheme of cooperative community organisation which touches upon all aspects of life. Within the rural economy, in particular, cooperation is the primary means for raising the level of productivity, extending improvements in technology and expanding employment so as to secure the basic necessities for every member of the community.

3. At the level of the village, cooperation implies the development of land and other resources and various services in the common interest of the village as a whole and a continuing obligation on the part of the village community towards all its members. It is visualised that as part of a larger cooperative rural economy, the broad aim of policy should be to develop the village as the primary unit of organisation in agriculture and in many other economic and social activities which bear closely on the welfare of the rural population. At the same time, artisans and others, according to their community of interest, will enter into cooperative associations which seek to serve their special needs. Programmes for land reform and for village and small industries, development of panchayats and the fundamental emphasis in community development on the obligations and functions of the community, all point in these directions. In due course, as the agricultural base is strengthened and efforts to diversify the occupational structure

of rural areas are intensified, an increasing number of cooperative activities will call for organisation for larger areas. Once the processes of social and economic change gather force and the rural community attains higher levels of skill and productivity, cooperation has to meet larger and more complex demands. Diverse forms of cooperative organisations will continue to develop in tune with new needs and possibilities.

4. For the development of cooperation, the Third Plan provides Rs. 80 crores as against the anticipated outlay of Rs. 34 crores in the Second Plan.

#### COOPERATIVE CREDIT

5. It has been agreed by the National Development Council after considering the proposals of the Committee on Cooperative Credit that while, as a general rule, cooperatives should be organised on the basis of the village community as a primary unit, where villages are too small, the number of villages to be served by a cooperative society may be increased in the interest of viability. The aim should be to ensure viability with the inclusion of the smallest number of villages necessary, so that cooperative societies achieve both viability and the essential characteristic of cooperation, namely, voluntary basis, close contact, social cohesion and mutual obligation. However, such extension should be subject to certain maximum limits, namely, a population of 3000 (*i.e.* 600 families or about 500 cultivators' families) at a distance of not more than 3 or 4 miles from the headquarters village. While a population of 3000 might ordinarily be too high for a primary village society, it is desirable to avoid laying down unduly rigid rules on the subject of reorganisation and the size of cooperative societies. Within this broad framework, the cooperative societies should be allowed to develop on their own. In this scheme of organisation, provision is also made for State participation in the share capital under appropriate conditions. Outright contributions to the funds of primary societies and central banks have been proposed so as to enable cooperative societies to admit all classes of cultivators as members and to provide them with adequate credit on the basis of production requirements and repaying capacity. Management grants up to a maximum of Rs. 900 spread over a period of 3 to 5 years are also given to primary societies.

6. Over the period of the first two Plans, the number of primary agricultural credit societies has risen from 1.05 lakhs to about 2.10 lakhs, their membership has gone up from 4.4 million to about 17 million and the loans advanced have risen from about Rs. 23 crores

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to about Rs. 200 crores. The Third Plan envisages increase in the number of primary agricultural credit societies to about 230,000, membership to 37 million (representing 60% of agricultural population), annual level of lending of short and medium term credit to Rs. 530 crores and of long term loans (amount outstanding) to Rs. 150 crores. The Plan places considerable emphasis on the consolidation or revitalisation of the cooperative movement where it is weak and provides for revitalisation of about 52,000 primary societies in addition to about 42,000 taken up for revitalisation during the Second Plan. The main consideration in fixing these targets is to ensure adequate support to the effort to achieve the larger agricultural targets in Third Plan.

#### COOPERATIVE MARKETING

7. During the Second Plan, 1869 primary marketing societies have been assisted. With the addition of 600 more primary marketing societies proposed to be set up during the Third Plan, there will be a marketing society at or near each of the 2500 mandis in the country. In addition to the sale of agricultural produce, marketing societies also serve as distributors of agricultural requisites. Efforts will be directed towards handling by cooperatives of a steadily increasing proportion of the marketable surplus of foodgrains and commercial crops. The principal problems of the marketing societies are to secure sufficient finance, to improve management and to ensure continued support from their members. Price stabilisation policies will greatly facilitate growth of cooperative marketing and the expansion of credit.

8. The programme for godowns is closely linked with the programme for marketing. At the end of the Second Plan, about 1670 godowns at mandi centres and 4100 in rural areas had been set up. The Third Plan envisages 990 additional godowns at mandi centres and 9200 godowns in rural areas.

#### COOPERATIVE PROCESSING

9. Development of cooperative processing is essential not only for increasing rural incomes and facilitating credit for production but also for strengthening of rural economic structure in each district in its cooperative aspects. In 1960-61, 30 cooperative sugar factories were in production and in the course of the Third Plan, depending upon factors governing the progress of the sugar factories as a whole, about 25 sugar factories may be established.

During the Second Plan, 378 cooperative processing units other than sugar factories were assisted. Programmes drawn up for the Third Plan include the setting up of 783 cooperative processing units—48

cotton ginning and pressing plants, 36 rice mills, 29 jute baling plants, 33 oil mills, 63 groundnut decorticators, 77 fruit canning units, 411 rice hullers, and 86 other units.

10. A twofold approach to the organisation of the processing units other than sugar factories is suggested in the Plan. Firstly, overall programmes regarding the number of units in each branch of industry should be formulated. Within this plan, the share of expansion to be assigned to the cooperative sector should be determined on broad considerations. To facilitate the working out of specific proposals, designs of plants, estimates of investment and working costs and other technical data should be made readily available. As in the case of cooperative sugar factories, arrangements for financing other types of processing units should be indicated. Against this background, concrete proposals could be invited from individuals and cooperatives in different areas. Given the necessary conditions, there is vast scope for development of cooperative processing not only in relation to new units but also, progressively, by way of reorganisation on cooperative lines of units which are at present privately owned. This latter aspect is important on wider considerations, both because it is the aim of public policy to reorient the organisation of processing industries from a private to a cooperative basis, and because in many of these industries there is at present either excess capacity or only limited scope for adding to existing capacity.

### COOPERATIVE FARMING

11. The role of cooperative farming in the reconstruction of the rural economy was stressed both in the First and in the Second Plan. The goal indicated in the Second Plan was that such essential steps were to be taken as would provide sound foundations for the development of cooperative farming, so that over a period of ten years or so, a substantial proportion of the agricultural lands were cultivated on cooperative lines. With the growth of population and the need to secure rapid increases in agricultural production and rural employment, it is essential to intensify efforts to develop cooperative farming throughout the country and to realise as speedily as possible the objectives set in the Second Plan. In the main, cooperative farming has to grow out of the success of the general agricultural effort through the community development movement, the progress of cooperation in credit, marketing, distribution and processing, the growth of rural industry, and the fulfilment of the objectives of land reform. The contribution of cooperative farming to rural progress will be significant in the measure in which it develops as a voluntary mass movement under genuine local

leadership and as a logical growth of community development and co-operation at the village level. Given the approach of community development and the acceptance by the village community of its responsibility for the welfare of all of its members, the main problems of co-operative farming are organisational, technical and educational.

12. The broad principles governing the organisation of cooperative farming societies and the assistance to be given to them were agreed to by the National Development Council in September, 1960, on the basis of recommendations of the Working Group on Cooperative Farming. In the general pattern of organisation proposed for the development of cooperative farming, stress is laid on the principle that cooperative farming is a voluntary movement and there should be no question of compelling any cultivator to join a cooperative farming society. The pattern also indicates the approach to such questions as the size of cooperative farms, the basis of State participation in pilot projects, and other organisational and economic aspects of the cooperative farming scheme. It is proposed to set up 3200 cooperative farming societies as pilot projects, roughly 10 in each district. This will constitute the first phase in the development programme of cooperative farming. As the Plan proceeds, in the light of practical experience in the pilot areas and elsewhere, it is hoped to formulate more comprehensive programmes for promoting cooperative farming. With greater progress in the development of co-operative farming there should be no difficulty in making available such additional resources as are required for supporting the effort.

13. A National Cooperative Farming Advisory Board has been constituted to provide general guidance in the development of co-operative farming.

#### CONSUMER COOPERATIVES

14. In 1959-60, there were 7168 primary stores with a membership of about 1.4 million and with a total paid up capital of Rs. 2.4 crores. Of these stores less than a third were running at profit. Programmes for the Third Plan provide tentatively for assisting 50 wholesale stores and 2200 primary consumer stores. These targets will, however, need further consideration in the light of the recent report of the Committee on Consumer Cooperatives. Consumer stores will be of the greatest help not only in the stabilisation of retail prices but also in preventing the evils of adulteration in food stuffs.

#### INDUSTRIAL COOPERATIVES

15. Industrial cooperatives have a large role both in the development of the rural economy and, more generally, in building up the



decentralised sector of industry. Industrial cooperatives have had a considerable measure of success in the handloom industry, in coir and in certain village industries. A number of concessions and facilities have been offered over the past year or two which should stimulate the growth of industrial cooperatives as a normal pattern of organisation. Effective use should be made of them for building up industrial cooperatives. Efforts in this direction need to be further intensified during the Third Plan.

#### LABOUR AND CONSTRUCTION COOPERATIVES

16. Labour cooperatives are required to play a major part during the Third Plan in undertaking construction works along with the voluntary organisations.

Labour and construction cooperatives and voluntary organisations can be entrusted with advantage with earth works of all types and simple masonry works relating to irrigation and flood protection schemes, simple Government buildings such as hostels, school buildings and supply in bulk of quantities of building materials such as stones, sand, etc. To enable genuine labour cooperatives and voluntary organisations to undertake such works, certain essential administrative conditions have to be fulfilled. These are indicated in the Plan which suggests that the aim should be to build up labour cooperatives and voluntary organisations as important instruments for undertaking development and providing employment through works carried out mainly on behalf of Government Departments, Panchayat Samitis and Panchayats. Once such organisations come into existence, new possibilities for enlarging their scope and extending their benefits to the community will emerge.

#### HOUSING COOPERATIVES

17. The village housing scheme provides for the setting up of housing cooperatives in selected villages and for the production of bricks, doors, windows and other components. Similarly, under the low income group housing scheme as well as other schemes which are being undertaken in the towns, cooperatives are either allotted land on favourable terms or assisted in acquisition of private lands. These various provisions need to be used purposefully and as a matter of sustained policy so that, in towns and villages alike, an appreciable impact can be made on the improvement of housing and living conditions.

#### OTHER NON-CREDIT COOPERATIVES

18. In addition to the various types of cooperatives discussed above, reference may be made to sugarcane supply societies, milk supply societies, fisheries societies, etc., which accounted for a membership of

2.34 million, 233,000 and 220,000 in 1959-60. Sixteen cold storages were also established by the end of Second Plan and 33 more will be set up in the Third Plan. The Third Plan includes large programmes for fisheries development and dairying. These are fields of great promise for the development of cooperative activity. Transport cooperatives should also be encouraged as a means of providing new opportunities for educated unemployed persons. The lines along which procedures and legislation relating to cooperation should be adapted to meet the special conditions and requirements of tribal areas, where there is considerable scope for building up cooperatives, specially for working forest areas and developing the traditional crafts, are being considered by a committee set up by the Central Government. The principle of cooperation can be extended to a growing range of new activities in urban and rural areas.

#### COOPERATIVE TRAINING AND ADMINISTRATION

19. For the Third Plan, programmes drawn up by the States envisage, amongst other steps, the addition of 13 schools for training junior cooperative personnel and the continuance of the scheme for the education of members of cooperative societies through peripatetic parties. The Study Team on Cooperative Training which has recently submitted its proposals contemplates increase in the number of centres for training intermediate and junior personnel to 15 and 120 respectively. These and other recommendations of the Team are at present under consideration.

Steps have been taken during the Second Plan to strengthen the State Cooperative Departments. Provision for this purpose has also been made in the Third Plan.

20. In planning and carrying out intensive development in rural areas, Panchayati Raj institutions and cooperative organisations have a complementary role and must cooperate closely at every step. Zila Parishads, Panchayat Samitis and Village Panchayats should promote the development of cooperatives and should endeavour to create a climate of community effort and social responsibility such as are vital for the successful functioning of cooperatives at all levels. Regulatory powers in relation to cooperative organisations may continue to remain with the Government, but some of them can be delegated progressively to federal cooperative organisations. These will help to build up the self-regulatory character of the movement and to promote local leadership.

Cooperation is a people's movement and initiative for cooperative development and responsibility for regulating the working of the movement should progressively devolve on cooperative institutions and their higher federal organisations. The building up of efficient federal organi-

sations in all sectors of cooperative activity assumes great importance in this context. As these organisations grow in strength, more powers may be transferred to them and the departmental machinery may limit its activities to the minimum statutory duties of registration, audit, arbitration and inspection. Promotional work relating to cooperation, cooperative training, education and publicity are activities falling within the special province of cooperative unions. Cooperative unions at State and district levels should be strengthened and enabled to undertake these responsibilities, and a strong federal structure should be built up from the ground.

## VI

### LAND REFORM

#### OBJECTIVES FOR THE THIRD PLAN

Land reform programmes, which were given a place of special significance both in the First and in the Second Plan, have two specific objects. The first is to remove such impediments to increase in agricultural production as arise from the agrarian structure inherited from the past. This should help to create conditions for evolving as speedily as possible an agricultural economy with high levels of efficiency and productivity. The second object is to eliminate all elements of exploitation and social injustice within the agrarian system, to provide security for the tiller of soil and assure equality of status and opportunity to all sections of the rural population.

2. The principal measures for securing these objectives were (i) abolition of intermediary tenures, (ii) reform of tenancy, including regulation and reduction of rent, security of tenure and finally conferment of right of ownership on tenants, and (iii) ceilings on land holdings. It was realised that with the existing pattern of distribution of agricultural holdings and the predominance of small farms, redistribution of land in excess of any given level of ceiling was not likely to make available a large area of surplus land for distribution. It was considered, however, that such reduction in disparities was a necessary condition for building up a progressive cooperative rural economy. It should be stressed that the principles on which the scheme of land reform is based do not merely involve adjustments between the interests of different sections of the population which depend on land, but are part of a wider social and economic outlook which has to be applied in some measure to every part of the economy.

3. With the enactment of legislation in one State after another, there has been greater understanding of the need for land reform and the purposes it is intended to achieve. For several reasons, the impact

of land reform has been smaller than was hoped for. There has been little recognition of land reform as a positive programme of development. It has not been sufficiently realized that the reform of land tenures and the early enforcement of ceilings are essential foundations for building up a cooperative rural economy. Moreover, there has been inadequate attention given to the administrative aspects of land reform. Collusions and evasions have gone unchecked and there has been failure also to enlist the support and sanction of the village community in favour of effective enforcement of legal provisions. While removing such shortcomings in the legislation or the rules as may come to notice, it is important that the land reform programme should be completed with the least delay so as to eliminate any feeling of uncertainty arising from delays in implementation. Effective implementation of tenancy legislation and other reforms require specially vigorous and sustained efforts on the part of governmental agencies, for, in the ordinary course, the scales are frequently weighed in favour of the continuance of existing terms and conditions. There must also be special efforts not only to acquaint tenants with the rights due to them but also to bring about greater understanding on the part of the people of each area of the objects of land reform and of the need to complete them without delay.

#### ABOLITION OF INTERMEDIARIES

4. Work on the abolition of intermediary tenures like zamindaris, jagirs and inams, which covered more than 40 per cent of the area of the country, has been fully carried out except for a few minor tenures. As a result of the abolition of intermediary tenures, more than 20 millions of tenants have been brought into direct relationship with the State and considerable areas of cultivable waste lands and private forests have come under the management of Government. However, out of a total amount of Rs. 670 crores, so far compensation to the extent of only Rs. 164 crores has been paid mainly in the form of bonds. It is important that in the course of the Third Plan all the States concerned should arrange to issue the compensatory bonds.

#### TENANCY REFORMS

5. *Rents*.—Over the past few years all States have enacted legislation for regulating rents. In several States, the maximum rent has been fixed, as suggested in the First and Second Plans, at one-fourth or one-fifth of the gross produce or less. In some States, however, the rents are yet to be brought down to the level recommended in the Plans. It is to be hoped that in these States rents will be reduced to the level envisaged in the Plans so as to facilitate more rapid improvement in

the economic conditions of tenants. As suggested in the Second Plan, it could also be desirable to provide for commutation of produce rents into cash rents. This would be facilitated if, with due regard to conditions of each district, rents could be declared as a multiple of the prevailing land revenue assessments.

6. *Security of tenure*.—Legislation providing for security of tenure has been enacted in eleven States and for all the Union Territories. In four States Bills are before the legislature and will be enacted in the near future. Pending legislation, ejectment of tenants has been stayed. Legislation for security of tenure has three essential aims—firstly, that ejectments do not take place except in accordance with the provisions of the law; secondly, that land may be resumed by an owner, if at all, for ‘personal cultivation’ only, and thirdly, that in the event of resumption the tenant is assured of a prescribed minimum area.

7. During the past few years, in a number of States, ejectment of tenants has taken place on a considerable scale under the plea of ‘voluntary surrenders’. Most voluntary surrenders of tenancies are open to doubt as *bona fide* transactions. Lack of proper definition of the expression ‘personal cultivation’ has also led to difficulties in giving effect to the legislation for the protection of tenants. On the whole both legislation and administrative action have fallen short of the recommendations. It is important that early steps should be taken to remove the legal and administrative deficiencies relating to the registration of voluntary surrenders and resumption of lands arising from them. State Governments should also review their current definitions of personal cultivation and modify them to the extent necessary.

8. Detailed suggestions were set out in the Second Plan for regulating resumption of tenancies on grounds of personal cultivation. Provisions in this respect have taken a variety of forms in different States. Experience of the working of these provisions leads to certain broad conclusions. The right to resume land creates uncertainty and tends to diminish the protection afforded by the legislation. Both in the First and Second Plans it was contemplated that it would not be necessary to allow resumption beyond a period of five years. It is considered that except for owners holding land equivalent to a family holding or less, in view of the period which has already elapsed, there should be no further right of resumption. Further, uncertainty for tenants would not be in the interest of agricultural development. Small owners, that is owners with a family holding or less, deserve special consideration. They should be enabled to resume one-half of the area

held by the tenants but in no event less than a basic holding. Where a tenant is left without any land or with an area smaller than a basic holding, the Government should endeavour to find land for him to cultivate.

9. Provisions regarding resumption for personal cultivation could be misused if large and medium-sized owners were to act *mala fide* and transfer their lands to relatives and others and so come within the definition of small owners. It would be generally desirable to provide for regulation of such transfers as has been provided in Gujarat, Maharashtra and Kerala.

10. *Rights of ownership for tenants.*—In the Second Plan it was suggested that each State should have a programme for converting tenants of non-resumable areas into owners and putting an end to vestiges of the landlord-tenant relationship. It was urged that instead of an optional right to tenants to purchase lands cultivated by them, all tenants of non-resumable areas should be brought into direct relationship with the State. In the course of the Second Plan, some progress has been made in enacting legislation for providing ownership rights to tenants. It is recommended that in the course of the Third Plan, steps should be taken to complete the programme for conferring rights of ownership on the tenants of non-resumable lands.

11. The question arises whether rights of ownership should also be conferred upon tenants of small holders. This might be desirable in principle. However, in view of the large numbers of petty owners involved, a uniform approach might not be feasible. The problem should be studied by States in the light of their conditions with a view to determining the action called for in this direction.

#### CEILINGS ON AGRICULTURAL HOLDINGS

12. In the course of the Second Plan, there has been legislation for placing ceilings on agricultural holdings in Andhra Pradesh, Assam, Gujarat, Kerala, Madhya Pradesh, Maharashtra, Orissa, Pepsu area in the Punjab, Rajasthan, Uttar Pradesh and West Bengal and in the Union Territories. Legislation had been enacted earlier in Jammu and Kashmir and Himachal Pradesh. Bills proposing ceilings are at present before the State Legislatures in Bihar, Madras and Mysore. In the Punjab, outside the area of the former Pepsu territory, the existing legislation permits the Government to utilise land in excess of the permissible area for the purpose of resettling tenants who have been ejected or may be ejected. With the completion of the legislation the essential task must be that of ensuring speedy and effective implementation.

13. *Transfers*.—In this context the most important issue for consideration is the provision regarding transfer of land on the part of landowners subject to ceiling. On the whole, it would be correct to say that in recent years, transfers of land have tended to defeat the aims of the legislation for ceilings and to reduce its impact on the rural economy. Since many of the transfers are apt to take place between members of a family, it has been suggested that ceilings should apply invariably to the aggregate area held by a family rather than to individuals. However, in view of the fact that the ceiling legislation has been enacted already in most States, any attempt to remove deficiencies or weaknesses would have to fit into the pattern of the prevailing legislation. The question of transfers could perhaps be dealt with in the following manner :

- (1) Where legislation does not contain a provision for disregarding transfers, in view of the fact that transfers have taken place on a considerable scale, a suitable date subsequent to which transfers are disregarded may be proposed, if necessary, through an amending legislation. This date may be the date of the publication of the ceiling proposals or an earlier date as may be prescribed in view of the local conditions.
- (2) In respect of transfers made after the specified date, a distinction may be made between (a) transfers among the members of a family, (b) benami transfers and other transfers which have not been made for valuable consideration and through a registered document, and (c) transfers made for valuable consideration through a registered document. Transfers coming under (a) and (b) can be disregarded. Transfers falling under (c) may need to be dealt with differently in view of the fact that the transferees may be small owners or landless persons who may have purchased some land. It may be necessary to protect such transferees, at any rate up to a prescribed limit, say, a family holding.
- (3) There should be provision for a review of transfers by a competent authority on the lines suggested above.

14. *Exemptions from ceilings*.—The Second Plan envisaged exemption from ceilings for the following categories of farms :

- (1) tea, coffee and rubber plantations;
- (2) orchards where they constitute reasonably compact areas;

- (3) specialised farms engaged in cattle-breeding, dairying, wool-raising, etc.;
- (4) sugarcane farms operated by sugar factories; and
- (5) efficiently managed farms which consist of compact blocks, on which heavy investment or permanent structural improvements have been made and whose break-up is likely to lead to a fall in production.

In the legislation which has been enacted in the States, plantations have invariably been exempted from ceiling. There are provisions also in favour of specialised farms. There has been some measure of variation in the approach to sugarcane farms operated by sugar factories and to efficiently managed farms. The considerations urged in the Second Plan and the recommendations regarding the exemption from ceilings of efficiently managed farms and of sugarcane farms operated by sugar factories remain generally valid for the Third Plan and there are advantages in following the course proposed. On the other hand, where a State, because of practical difficulties or other reasons, wishes to adopt a different course, certain conditions should be assured. These are, firstly, that the integrity of the farms should be maintained and their level of efficiency ensured and, secondly, in the case of sugar factory farms, satisfactory and continuous supply of the raw material to the factory concerned should be secured.

15. It is important that surplus lands available as a result of the ceiling legislation, along with waste lands and, where possible, lands available through Bhoodan, should be allotted with the least possible delay in accordance with systematic schemes of resettlement. In providing land, care should be taken to make available the necessary financial and technical assistance, so that those settled on the land may develop high standards of cultivation.

#### CONSOLIDATION OF HOLDINGS

16. About 23 million acres had been consolidated by the end of 1959-60 and work was in hand over another 13 million acres. According to indications given by States, the total area likely to be taken up for consolidation in the Third Plan is about 30 million acres. Progress in the consolidation of holdings has been recorded mainly in Punjab, Uttar Pradesh, Maharashtra, Gujarat and Madhya Pradesh. In other States there has been comparatively little advance during the Second Plan. It is proposed to study more closely how best the factors which come in the way of extension of the consolidation programme in the southern and eastern parts of the country can



be overcome and what changes and adaptations in the present methods and system of consolidation are called for in these areas.

### LAND MANAGEMENT LEGISLATION

17. The place to be assigned to land management legislation and the manner in which it should be applied need to be considered in the light of developments during the first two Plans. Legislation regarding land management has been enacted only in two States and in one Union Territory and even in these it has not been actually implemented. However, a large number of enactments exist in the States for certain specific agricultural purposes such as utilisation of waste lands, adoption of improved seeds, control of pests and diseases, etc. This legislation needs to be reviewed in relation to the present development programmes for agriculture and the extension services which have been brought into existence in the community development blocks. The question of enforcement of legislative sanctions and of the role of Panchayats and Panchayat Samitis has to be studied further in the light of the experience gained in the working of the existing enactments.

### PROBLEMS OF IMPLEMENTATION

18. Problems arising in the implementation of land reform legislation enacted in the States have been studied by the Panel on Land Reform. The Panel has laid particular stress on the preparation of correct and up-to-date records of rights and the need to strengthen the revenue administration. Records of rights are being brought up-to-date in several areas. In some of them there is need for a more intensive programme of work. In several States records of rights do not provide information regarding tenants, sub-tenants and crop sharers and as such implementation of the legislation itself suffers. Expenditure in regard to cadastral surveys and in the preparation and correction of records of rights has been included in the plans of some States and is eligible for Central assistance. Provisions made for this purpose would need to be augmented as the work proceeds.

19. A number of surveys of land reform had been undertaken in different parts of the country through the Research Programmes Committee of the Planning Commission. They bring out the problems encountered in enforcing the legislation. In view of the wide scope of the legislation which has been enacted and differences in conditions, it is desirable to extend these studies on a systematic basis. For this purpose the assistance of universities and leading research centres should be fully availed of. The aim should be to

cover different areas in accordance with a general scheme and to arrange for the evaluation of land reform both in the transitional phase and from the aspect of long-term economic and social effects.

## VII

### AGRICULTURAL LABOUR

In relation to agricultural labourers, the two principal problems are their place in the future rural economy and provision of work for them. Although the social handicaps associated with agricultural labourers, and with backward classes generally, have greatly diminished, their economic problems, especially the need for larger opportunities of work, have been thrown into sharper relief. It is one of the primary objects of the Five Year Plans to ensure fuller opportunities for work and better living to all sections of the rural community and, in particular, to assist agricultural labourers and the backward classes to come up to the level of the rest. Their problems undoubtedly constitute a challenge, and the obligation rests upon the community as a whole to find satisfactory solutions for them.

2. The problem of agricultural labourers is part of the wider problem of unemployment and under-employment in rural areas. With the development of agriculture and irrigation there has been increase in production and in the total volume of work. But this has been shared among much larger numbers. It has always been realised that the various measures which are undertaken in the interest of the rural population as a whole must be supplemented in several directions by special measures for assisting agricultural labourers in improving their living conditions and obtaining a fair share of the wider opportunities which are now being developed in the villages through rural development and other programmes.

3. The First Plan included proposals for settlement of agricultural labourers, protection against ejectment from homesteads and enforcement of minimum wages, especially in low wage pockets in different States. During the Second Plan individual States continued with the resettlement schemes which they had formulated and a number of these were assisted by the Central Government. Some State Governments took steps to provide house sites free or on a subsidised basis. Programmes of development under agriculture, irrigation, community development and village and small industries were expected to benefit agricultural labourers to a considerable extent along with others in the rural areas:

4. The Third Plan provides for large investments in the development of rural economy. The total outlays in the public sector on agriculture, community development and irrigation will amount to over Rs. 1700 crores. These, together with programmes of development of village and small industries, village electrification, village water supply, rural housing and welfare of backward classes, for which adequate provisions have been made in the Plan, will largely benefit agricultural workers and other weaker sections in the rural community. Besides, following the recommendation of the Central Advisory Committee on Agricultural Labour, recently set up by the Planning Commission, efforts will be made to settle 7 lakh families of landless agricultural workers over an area of 5 million acres. The Plans of States provide about Rs. 4 crores for settlement schemes. In addition, at the Centre a sum of Rs. 8 crores has been provided for assisting State Governments in implementing their settlement schemes.

5. The most significant measure proposed in the Third Plan for the benefit of agricultural labourers is the programme for undertaking works projects in rural areas. Under this programme, it is hoped to provide additional wage-employment in rural areas for about 100 days in the year specially during the slack agricultural seasons, for about 2.5 million persons by the last year of the Third Plan. This programme will specially concentrate on schemes for agricultural development like irrigation, flood control, land reclamation, afforestation, soil conservation, road development projects, etc., in agricultural slack seasons specially in areas with high incidence of under-employment.

6. Reorganisation of the rural economy along cooperative lines and emphasis on the role and obligations of the community are intended not merely to raise agricultural productivity and diversify the rural economic structure but, equally, to bring about as rapidly as may be possible an integrated society in which there will be equal opportunity for every member of the community, irrespective of caste or status. In other words, in the structure of the rural economy which the Five Year Plans attempt to build up, agricultural labourers will participate fully and on equal terms with others, and will achieve effective economic and social equality with the rest of the rural population. A close watch on the progress actually achieved in these directions should be maintained through special studies and evaluation as well as review by the Central Advisory Committee on Agricultural Labour and similar bodies proposed to be set up in the States.

## CHAPTER 13

### IRRIGATION AND POWER

#### IRRIGATION

OUT of about 1356 million acre feet of the available river water resources of the country, for physiographical reasons only about 450 million acre feet can be used for irrigation. By the end of the Second Plan, about 120 million acre feet would be utilised. An additional 40 million acre feet are likely to be used in the Third Plan.

2. The progress of irrigation up to the end of the First and Second Plans and the targets for the Third Plan are shown below :

#### Area Irrigated

(net area\* in million acres)

	1950-51	1955-56	1960-61	1965-66
major and medium irrigation	22·0	24·9	31·0	42·5
minor irrigation	29·5	31·3	39·0	47·5
total	51·5	56·2	70·0	90·0

The ultimate irrigation potential from major\*\* and medium irrigation projects is expected to be about 100 million acres gross,\*\* and from minor irrigation works, about 75 million acres gross.

3. The aggregate estimated cost of major and medium irrigation projects included in the First and Second Plans is of the order of Rs. 1400 crores, and on full development these projects are expected to irrigate about 38 million acres. By the end of the Second Plan, a total outlay of about Rs. 800 crores had been incurred on irrigation including flood control. The position in regard to accrual of

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\* Net irrigated area is the area irrigated in a year counting the area which receives irrigation for more than one crop only once.

\*\* Irrigation projects costing more than Rs. 5 crores each are classed as major schemes and those costing between Rs. 5 crores and Rs. 10 lakhs as medium schemes. Schemes costing Rs. 10 lakhs or less are classed as minor schemes, provided they do not form part of any existing major or medium scheme.

\*\*\* Gross irrigated area represents the total of cropped areas irrigated in a year, i.e. net irrigated area added to the area under subsequent crops irrigated during the year.

benefits from these schemes at the end of First and Second Plans is set out below :

		Benefits from irrigation schemes			
end of		potential* at channel outlets (in million acres)	gross area (in million acres)	irrigated as per- centage of potential at outlet	net area irrigated (in million acres)
First Plan (1955-56)	.. ..	6.5	3.1	48	2.9
Second Plan (1960-61) (estimated)	..	13.2	10.0	76	9.0

4. *Programme for the Third Plan.*—In the Third Plan, emphasis has been given to the following categories of schemes :

- (1) completion of continuing schemes of the Second Plan right up to the cultivators' fields, *i.e.* including field channels;\*\*
- (2) drainage and anti-waterlogging schemes; and
- (3) medium irrigation projects.

The new projects to be commenced during the Third Plan include about 95 new medium irrigation schemes. The cost of irrigation and flood control programmes during the Third Plan is Rs. 661 crores. This includes Rs. 436 crores for irrigation projects carried over from the Second Plan, Rs. 164 crores for new projects and Rs. 61 crores for flood control, drainage, anti-waterlogging and anti-sea erosion schemes. The benefits under various heads anticipated during the Third Plan are as follows :

**Programme and benefits in the Third Plan**

group	estimated outlay	additional benefits	
	(Rs. crores)	potential	gross irri- gated area
1 irrigation :		(in million acres)	
continuing schemes	436	13.8	11.65
new schemes ..	164	2.4	1.15
	600	16.2	12.80
		net area	11.50
2 flood control, drainage, anti-waterlogging and anti-sea erosion schemes .. ..	61	about 5 million acres to be benefited and 25 miles of sea coast to be protected.	
total	661		

\*Irrigation potential is the area which can be irrigated with the water made available at channel outlets.

\*\*The term 'field channel' refers to a channel which conveys or distributes water from an outlet or opening in a water course for irrigation of fields.

A separate provision has been made under 'Agriculture' for soil conservation works in river valley catchments, and about a million acres are expected to be covered.

5. *Flood control, drainage, anti-waterlogging and anti-sea erosion schemes.*—Flood control, drainage and anti-waterlogging are closely related to irrigation, and these have to be viewed together in drawing up comprehensive development plans. Waterlogging in certain parts of the country, particularly in the Punjab, has become serious and anti-waterlogging measures have to be taken up in the Third Plan on an extensive scale. Similarly, anti-sea erosion measures in certain coastal reaches, such as Kerala, have to be given due attention.

6. *Financial returns.*—Irrigation systems are at present working at a loss in almost all States. Special steps to bring about substantial improvements in financial returns from irrigation works, which are urgently called for, are speeding up utilisation of irrigation, revision of water rates and introduction of compulsory water cess, legislation for and recovery of betterment levy, and economy in the use of irrigation supplies. Water rates should ordinarily cover working expenses and debt charges. In most States, the existing water rates are relatively low and require upward revision. Further, in States where water charges are optional, there should be a compulsory water cess leviable on the entire area for which irrigation facilities are provided, irrespective of whether water is taken by cultivators or not. Legislation for betterment levy has already been enacted in all but three States but, almost everywhere, enforcement of the legislation has lagged behind. Legislation for flood cess has also been enacted in several States. Promotion of the necessary legislation in the remaining States and enforcement of legislation where it has already been passed are essential steps to be taken to reach the estimated yield of Rs. 39 crores from betterment levy and flood cess during the Third Plan.

7. *Utilisation of irrigation.*—The principal measures needed for securing speedy benefits from irrigation projects are well known. They include synchronisation and correct phasing of the programmes for the construction of head-works, canals, distributaries, water courses and field channels, setting up development blocks over the entire project area, marking out by the project authorities on village maps the alignment of water courses and field channels and supply of these maps to district and block authorities, carrying out systematically other developmental activities such as soil surveys, setting up of demonstration farms, economy in the use of water, advance planning by the Departments concerned in their respective fields, for instance, for the supply

of improved seeds and fertilisers, provision of credit, marketing facilities, etc. Concessional water rates in the initial two or three years of a new irrigation project are also important.

8. *Investigation, research and design.*—Master plans for the long-term development of irrigation should be prepared in each State. Schemes which may be proposed for consideration in the Fourth Plan by the State Governments should be thoroughly investigated well in time, and project reports, complete in all important respects, prepared for them in the course of the Third Plan itself. For this purpose, as also for schemes included in the Third Plan, investigation units in the States should be strengthened.

An outlay of Rs. 120 lakhs has been provided in the Third Plan for the programmes of fundamental research in irrigation, which are being conducted at the Central Water and Power Research Station, Poona and fifteen other research stations in the States. Every State should also have a strong designs organisation which, working in conjunction with the research organisation, should produce the most suitable and economical designs.

9. *River Boards.*—For integrated and economic development of water resources, arrangements for inter-State cooperation for development of river basins, especially those of the larger rivers, are essential. In the long-term planning of water resources, the requirements of water supply for industries and for the growing urban populations will also constitute a major problem in development. The setting up of River Boards for important river basins would enable a coordinated view to be taken of the needs of a river basin as a whole, including soil conservation in the catchment area.

10. *Public cooperation.*—Beneficiaries of flood control, drainage, anti-waterlogging and anti-sea erosion schemes as also certain portions of irrigation works should be persuaded to contribute towards these schemes by offering voluntary labour and/or money in lieu thereof. These works should be carried out in close cooperation with the local elected bodies. To the extent possible, labour cooperatives and voluntary organisations should be utilised.

11. *Use of manual labour and machinery.*—Ordinarily, construction of projects should be carried out manually, unless resort to manual labour delays completion of the work abnormally, or adds to its cost prohibitively. Where necessary, judicious use of machinery and equipment to assist manual labour may be resorted to.

12. *Maintenance of existing works.*—Maximum benefits should be derived from existing irrigation facilities by efficient maintenance and operation.

13. *Control Boards.*—Several large projects are being taken up in the Third Plan. For some of these, it would be helpful to set up Control Boards to ensure their efficient and economical planning and implementation. For other large projects, for which no Control Boards are set up, there should be arrangements for periodical review by the Ministry of Irrigation and Power with a view to removing bottlenecks and ensuring speedy implementation.

## POWER

14. The total installed generating capacity in the country at the beginning of the First, Second and Third Plans was 2.30 million kW, 3.42 million kW and 5.70 million kW respectively. The additional generating capacity installed during the Second Plan averaged about 0.45 million kW per annum. It is proposed to step up this programme by commissioning 1.40 million kW per year on an average during the Third Plan. The aggregate installed generating capacity in the country by 1975-76 may be of the order of 35 million kW.

15. By the end of the Third Plan, the aggregate capacity of the plants in commission and under erection and testing will be of the order of 13.40 million kW, of which 12.69 million kW are expected to be in commercial operation. With the completion of this programme, per capita generation of electricity will have risen from 18 kWh in 1951, 28 kWh in 1956 and 45 kWh in 1961 to about 95 kWh in 1966. The transmission network will be further strengthened and 66,000 miles of transmission lines (11 kV and above) are proposed to be constructed during the Third Plan.

A nuclear power station with an installed capacity of 300 MW is planned for construction at Tarapur near Bombay.

16. *Financial outlays.*—The total investment on power up to the end of the Second Plan is estimated to be Rs. 1017 crores—Rs. 790 crores in State-owned public utilities, Rs. 149 crores in company-owned public utilities, and Rs. 78 crores in self-generating industrial establishments.

The estimated cost of the total power programme in the Third Plan is Rs. 1089 crores—Rs. 1039 crores in the public sector and Rs. 50 crores in the private sector—with foreign exchange requirements being estimated at Rs. 320 crores. The approximate break-up of the programme in the public sector is Rs. 661 crores for hydro



and thermal generating schemes, Rs. 51 crores for atomic power and about Rs. 327 crores for transmission and distribution schemes including Rs. 105 crores for rural electrification.

17. The growth of installed capacity is set out below :

#### Growth of installed capacity and energy generated

	1950	1955	1960-61 (estimate)	1965-66 (estimate)
installed capacity (in million kW)				
State-owned public utilities .. ..	0.63	1.52	3.32	9.82
company-owned public utilities ..	1.08	1.18	1.36	1.45
self-generating industrial establishments	0.59	0.72	1.02	1.42
total ..	2.30	3.42	5.70	12.69

The total energy generated will increase from about 20,000 million kWh at the end of the Second Plan to about 45,000 million kWh at the end of the Third Plan. Industries consume about 63 per cent of the total amount of electricity generated or, expressed differently, about 72 per cent of the power sold to consumers.

18. *Rural electrification.*—The Third Plan provides for an outlay of Rs. 105 crores for rural electrification. Increase in the number of villages and towns electrified during different Plan periods is shown below :

#### Towns and villages electrified

population range	total number according to 1951 census	number electri- fied by March, 1951	number electri- fied by March, 1956	number electri- fied by March, 1961 (estimate)	number to be electri- fied by March, 1966 (estimate)
over 100000 .. ..	73	49	73	73	73
50000 to 100000 .. ..	111	88	111	111	111
20000 to 50000 .. ..	401	240	366	399	401
10000 to 20000 .. ..	856	260	350	756	856
5000 to 10000 .. ..	3101	258	1200	1800	3101
less than 5000 .. ..	556565	2792	5300	19861	38458
total ..	561107	3687	7400	23000	43000

19. There are a number of isolated areas where small hydro plants of 10 to 100 kW each can be set up at modest cost. Small hydro units up to 100 kW capacity are now being manufactured in the

country. In the long run, they will be more economical than diesel-alternator sets and relatively easy to maintain, and will not involve foreign exchange for their procurement or operation.

20. Rural extensions of electricity become relatively uneconomic mainly because of distances separating individual villages, the low level of power consumption and the seasonal character of the requirements of power, specially in agriculture. With a view to improving the load factor it is essential that different types of economic activities in each district requiring the use of power should be developed in a coordinated manner. There should be forward planning for rural electrification, so that simultaneous action is initiated in all the sectors at the appropriate time. It has been suggested to States that in every district where electric facilities exist or are likely to be available, small committees should be set up to plan and advise on rural development programmes. There should be coordination between programmes for the development of village and small industries, minor irrigation requiring electricity for pumping and for generation and distribution of power in rural areas.

21. Several aspects of rural electrification such as those relating to the adequacy of power supply for rural loads, rates for supply and the role of Panchayat Samitis and Village Panchayats in the distribution of electricity are being studied further.

22. *Other aspects of power development.*—The Electricity (Supply) Act, 1948, laid down that a sound, adequate and uniform national power policy should be developed for coordinating the activities of planning agencies in relation to the control and utilisation of national power resources. This calls for exploitation of the natural resources in the most economical manner for the benefit of the entire region regardless of State boundaries. There has been inter-State collaboration in the past in the execution of projects such as Bhakra-Nangal, Machkund, Tungabhadra, Chambal and others. Such cooperation needs to be further extended so that power generation may be undertaken on a regional or zonal basis and not merely to meet demands within one State. A special unit in the Central Water and Power Commission is being set up for undertaking studies and planning of regional super-grids in association with State Electricity Boards and other electricity supply undertakings.

23. State Electricity Boards set up in accordance with the Electricity (Supply) Act, 1948, are charged with the general duty of promoting the coordinated development of the generation, supply

and distribution of electricity within each State in the most efficient and economical manner. Certain essential steps have to be undertaken for bringing about substantial improvement in the financial position of State Electricity Boards, which in many cases is not satisfactory.

• 24. Hydro-electric projects require extensive investigations. There has been a paucity of fully investigated projects which has hampered the more rapid development of this source of cheap power. A programme for investigating 64 specific hydro sites with a potential of 12 million kW has been drawn up and it is necessary to devote special attention to it.

25. Systematic surveys of prospective loads in the various regions and their periodic review should be conducted by the State Electricity Boards and the Central Water and Power Commission.

26. *Research.*—Research on problems of generation, transmission and distribution will be carried out in the Power Research Institute established at Bangalore. A switchgear testing station is being set up at Bhopal for testing and developing designs of switchgear.

27. *Design and construction.*—A unit with a specialist organisation to plan, design and construct large hydro and thermal stations which are at present being done through foreign consultants is being set up within the Central Water and Power Commission.

## CHAPTER 14

### VILLAGE AND SMALL INDUSTRIES

VILLAGE and Small Industries have made a significant contribution in the First and Second Plans in realising the objectives of expanded employment, larger production and more equitable distribution. With the larger dimensions of the tasks to be accomplished in the Third Plan, their role will be even more important. One of the principal aims of planning in this field is to assist in the adoption of improved techniques and more efficient forms of organisation, so that full advantage is taken of the basic facilities and services available as a result of general economic development, and over a period the entire sector becomes self-reliant and self-supporting. At the same time, the pace of technical change will have to be so regulated that large-scale technological unemployment is avoided. The problems of these industries will, therefore, need to be constantly reviewed and necessary measures taken to realise the full potential of decentralised industry as an essential and continuing element in the national economy.

#### REVIEW OF PROGRESS

2. In the First Plan, a major step taken was the establishment of All-India Boards to advise and assist in the formulation of development programmes for the Handloom Industry, Khadi and Village Industries, Sericulture, Coir, Handicrafts and Small Scale Industries. An essential feature of development programmes was the provision of assistance in different forms such as credit, training facilities, technical advice, supply of improved tools and equipment on easy terms and establishment of sales depots. In the Second Plan, the scale of assistance for all these purposes was considerably enlarged, the total anticipated outlay being a little less than Rs. 180 crores compared to about Rs. 43 crores in the First Plan. State Departments of Industries were also strengthened.

3. According to information available at present, production of handloom cloth increased from about 742 million yards in 1950-51 to about 1900 million yards in 1960-61. Fuller employment was provided for nearly 3 million weavers. The number of looms in the cooperative fold increased from less than 700,000 in 1953 to nearly 1.3 million by the middle of 1960. Production of traditional khadi (cotton, silk and woollen) increased from 7 million yards in 1950-51 to about 48 million yards in 1960-61 and that of Ambar khadi (produced from the admixture of Ambar yarn and ordinary charkha yarn) increased from 1.9 million

yards in 1956-57 to about 26 million yards in 1960-61. Additional employment, mainly part-time, was provided by these programmes to nearly 1.4 million spinners, besides whole-time employment to about 1.9 lakh weavers, carpenters, etc.

4. Village industry programmes in the Second Plan provided partial relief to about 5 lakh artisans and under-employed women workers in villages. An intensive area scheme was undertaken during the Second Plan which aimed at intensive development of khadi and village industries as part of a larger effort for developing an integrated rural economy. Production of raw silk rose from 2.5 million lb in 1951 to 3.6 million lb in 1960. At the end of the Second Plan period, it was reckoned that the industry provided part-time employment to about 2.7 million persons, besides full-time employment to about 35,000 persons. Exports of coir yarn and goods remained below the level reached at the end of the First Plan period. The industry is at present estimated to provide employment to about 8 lakh persons. In handicrafts, there was an increase in internal sales as well as exports. It is estimated that handicrafts including carpets worth over Rs. 6 crores per annum were exported during the last three years of the Second Plan period.

5. Many small scale industries, notably machine tools, sewing machines, electric fans and motors, bicycles, builders' hardware and hand tools expanded considerably during the Second Plan, the increase in production being as much as 25 to 50 per cent per annum. An industrial extension service was established and modern machines valued at about Rs. 4.2 crores were supplied on hire-purchase terms to small industrialists. About 6 lakh pairs of leather shoes were supplied by small scale units for export. About 60 industrial estates were completed by 1960-61, of which 52 with about 1035 factory sheds, employing about 13,000 persons, were actually functioning. The programme for small scale industries as a whole is estimated to have provided full-time employment to about 3 lakh persons.

#### APPROACH IN THE THIRD PLAN

6. The main objectives to be kept in view in implementing programmes for village and small industries in the Third Plan will be :

(i) to improve the productivity of the worker and reduce production costs by placing relatively greater emphasis on positive forms of assistance, such as improvement of skill, supply of technical advice, better equipment and credit, etc.,

(ii) to reduce progressively the role of subsidies, sales rebates and sheltered markets,

(iii) to promote the growth of industries in rural and small towns,

(iv) to promote the development of small scale industries as ancillaries to large industries, and

(v) to organise artisans and craftsmen on cooperative lines.

The policies and measures proposed for achieving these objectives are outlined below.

*7. Improvement of skill and productivity.*—Training facilities for meeting the requirements of technical and managerial personnel will be considerably enlarged in the Third Plan. For rural artisans, a scheme has been drawn up to set up in selected areas 'cluster-type' institutions, serving groups of villages for providing training courses in certain allied trades such as blacksmithy, carpentry, etc. An all-India institute will be set up to provide facilities for training in industrial extension techniques. In addition to the introduction of improved tools and equipment, efforts will also be organised on a larger scale to provide technical advice to artisans and craftsmen engaged in various industries.

*8. Credit and finance.*—Credit facilities will be organised on a larger scale in the Third Plan and made available on reasonable terms and with the minimum of procedural delays. However, the aim to be kept in view is that in increasing measure the credit required should be available from normal banking and financial institutions.

*9. Common production programmes.*—Positive measures of organisation and assistance were mentioned in the First and Second Plans as being among the elements of common production programmes. The expression "common production programme" was adopted as a convenient way of describing the basic approach for determining, while formulating programmes for development in different sections of an industry, the respective contributions which the large-scale and small-scale and cottage sectors could make towards the total requirements of the community, in the context of the social and other objectives. The other elements of the programme, which had the object of providing a degree of preference or assurance in marketing to the small-scale sector, were reservation of spheres of production, limiting the expansion of the capacity of the large sector of the industry, imposition of cesses on large-scale units and giving a price advantage to the smaller units through differential taxation, subsidies, sales rebates, etc. It was recognised that the general principles underlying common production programmes could be applied only after detailed study and investigation of the problems of particular industries.

10. *Role of subsidies, sales rebates, etc.*—The progressive enlargement of programmes of positive assistance is expected to make it possible to reduce the role of subsidies, sales rebates and sheltered markets in the Third Plan. In the case of some of the traditional industries, measures for ensuring preferential treatment and assurance of market for their products may have to be continued for a somewhat longer period than in the case of small scale industries.

• 11. *Industrial development in rural areas and small towns.*—Emphasis in the Third Plan will be on encouraging the further growth of industries in rural areas and small towns as well as in less developed areas having a marked industrial potential. To this end, areas in which various basic facilities will become available as a result of development envisaged in other sectors have to be identified and different kinds of assistance provided in an integrated manner in rural areas and small towns. In this way a number of successful centres which may serve as models and as nuclei for more widespread development should be built up. In particular, processing industries should be developed to the maximum extent in the decentralised and small-scale sector and on a cooperative basis. Where power and other basic facilities are not available, rural artisans should be assisted to organise on cooperative lines.

12. *Development of small industries as ancillaries.*—Various methods of promoting the development of small scale industries as ancillaries to large-scale industries are being examined by a special committee. It is proposed to encourage schemes for linking up the production of small scale units with those of large industrial projects in both the public and private sectors. In each branch of industry, it is essential to take a comprehensive view of the requirements of the community, the contribution which small industries can make in relation to large-scale industries and the extent to which processes and stages of production can be decentralised. A number of industries are being studied for such integrated development.

• 13. *Industrial cooperatives.*—The emphasis in the Third Plan will be on consolidation of the organisation and finance of the existing cooperatives and on bringing more workers within the cooperative fold. The main steps proposed to be taken include provision of financial assistance to cover expenditure on managerial and supervisory staff for a limited period, subsidisation of the rate of interest charged by the central cooperative financing agencies to the primary societies, etc. In the case of those small scale industries where industrial entrepreneurs or partnerships predominate, formation of associations will be encouraged.

14. *Arrangements for coordination.*—Further means will need to be devised to secure coordination among the various Boards and agencies concerned with the implementation of the programmes, particularly at the field level. With developments envisaged in the field of agriculture, power, transport, etc. it is necessary to take a unified view of the entire problem of rural industrialisation which the existing Boards may not always be able to do because each of them operates in its own specified field. It is proposed to examine various aspects of this question further in consultation with State Governments and the Boards.

#### OUTLAY AND ALLOCATION

15. In the Third Plan, a total outlay of Rs. 264 crores has been proposed as compared with an estimated expenditure of a little less than Rs. 180 crores in the Second Plan. The break-up of this outlay between different industries is given below:

industry	Second Plan estimated expendi- ture	(Rs. crores)		
		States and Union Terri- tories	Centre	total
handloom industry	29.7	31.0	3.0	34.0
powerlooms in the handloom sector	2.0	—	4.0	4.0
khadi—traditional	82.4	3.4	37.0	92.4
ambar			32.0	
village industries	—	—	20.0	
sericulture ..	3.1	5.5	1.5	7.0
coir industry ..	2.0	2.4	0.8	3.2
handicrafts ..	4.8	6.1	2.5	8.6
small scale industries	44.4	62.6	22.0	84.6
industrial estates	11.6	30.2	—	30.2
total .. .. .	180.0*	141.2	122.8	264.0

In addition to the outlays indicated above, there is a provision of about Rs. 20 crores made for the development of these industries in the programme of community development and some provisions for the purpose have also been made in the programmes for the rehabilitation of displaced persons, social welfare and the welfare of backward classes. Further, about Rs. 275 crores are expected to be invested from private sources including banking institutions. Under each programme, it is essential that expenditure on buildings and overheads is kept to the minimum.

\* Outlay anticipated is of the order of Rs. 175 crores.



## PROGRAMMES OF DEVELOPMENT

16. *Handloom and powerloom industries.*—Besides expansion in handloom production through fuller employment of handloom weavers, more liberal loan assistance for share capital, and introduction of improved techniques, emphasis will be shifted gradually from rebate on sales and other schemes involving subsidy to more positive forms of assistance. It is proposed to revitalise a number of weak cooperative societies. Steps will also be taken to stimulate the exports of handloom cloth. With a view to improving the economic conditions of handloom weavers organised on cooperative lines, it is proposed to assist them to instal 9000—9500 powerlooms during the next few years. Of the total production target of 9300 million yards of cloth set for 1965-66, the share of the decentralised sector, namely, the handloom, powerloom and khadi industries, has been fixed at 3500 million yards, but no precise distribution of it between these different sections has yet been made. The position will be reviewed from time to time in the light of progress made in each sector.

17. *Khadi—traditional and Ambar.*—Development of khadi in the Third Plan will be mainly along the lines of the reoriented programme drawn up by the Khadi and Village Industries Commission in which the emphasis will primarily be on intensive efforts to secure integrated rural development of selected compact areas or gram ekais. It is proposed to organise 3000 gram ekais, each covering a village or group of villages having a population of 5000 each. Another distinguishing feature of the future programme will be the preparation of local plans for the maximum exploitation of available resources for local use. The traditional charkha will continue to play a definite role, but greater efforts will be made to popularise the Ambar charkha, whose productivity will be increased further. Although no precise allocation of production targets of cloth has been fixed for different sections of the decentralised sector, the aim is to raise the production of khadi to about 160 million yards.

18. *Village industries.*—There are inherent difficulties in securing rapid progress in the development of village industries. Rural artisans are usually dispersed in a large number of scattered villages and suffer from low standards of literacy and poor economic conditions. Lack of trained and qualified staff and of adequate funds and organisation for procurement of raw materials in bulk and inefficient techniques of production are other factors to be reckoned with. The Khadi and Village Industries Commission has prepared programmes for village industries for implementation in compact areas and mainly to meet

local requirements. The existing character of many of these industries is expected to change through the use of improved techniques and also the use of power, wherever available and considered desirable. Development programmes have been drawn up for such village industries as hand-pounding of paddy, oilseeds crushing, tanning and leather, match, gur and khandsari, bee-keeping, palm gur, hand-made paper, etc. They include schemes for setting up new production units and introduction of improved equipment and generally for more intensive development. It has been observed that the intentions of the Rice Milling Industry (Regulation) Act, 1958, specially, due consideration of the likely effects of new licensing on the existing hand-pounding industry and preference to rice mills to be run by cooperative societies, have not been adequately fulfilled. It is proposed to consider further the problems which have arisen so as to ensure that the policies visualised in the legislation are carried out effectively.

19. *Sericulture*.—The emphasis in the development programme for the sericulture industry will be on reducing the cost of production, creating a suitable marketing organisation, supplying disease-free seed and exploring possibilities of increasing exports. Mulberry cultivation is to be made a paying occupation by increasing the yield per acre through irrigation and application of fertilisers. The traditional charkha is to be replaced by cottage basins. Facilities for cooperative marketing for both cocoons and raw silk will be developed with a view to ensuring an economic price to rearers and preventing undue rise in prices of raw silk. The possibilities of increasing exports will be explored. The production of mulberry and non-mulberry silk is expected to increase from 3.6 million lb in 1960 to 5 million lb in 1965-66.

20. *Coir industry*.—The main emphasis in the Third Plan will be on stepping up exports and organising coir cooperatives on a more stable footing. Coir spinners will be supplied treadle spinning machines with a view to improving the quality of yarn and ensuring stricter control and greater supervision over the operations of primary cooperative societies. A special export promotion scheme has been drawn up to assist registered manufacturers-cum-exporters of coir yarn and other products. The programme includes promotion of new lines of production like utilisation of coconut pith and coir waste and setting up of defibring plants for the manufacture of mattress and bristle fibre.

21. *Handicrafts*.—The All-India Handicrafts Board has adopted specific programmes for the development of twelve selected crafts. As a result of development work undertaken in recent years, the key problems of various crafts have been identified. Special steps to deal with

them more fully will be taken during the Third Plan. While co-operatives will constitute the main line of development, there is scope also for organisation of small entrepreneurs into associations with a view to adoption of improved business standards, control over quality and better conditions for artisans. In addition to promotion of exports, production of handicrafts has to be oriented towards meeting the needs of customers in different income groups within the country itself and the development of rural crafts. Programmes for the Third Plan include pre-shipment inspection, credit and other facilities for exporters, establishment of design extension centres, promotion of inter-State marketing, marketing research and extension of training facilities in selected crafts and also in management of emporia and salesmanship.

22. *Small scale industries.*—Programmes undertaken during the Second Plan period for provision of technical advice and information, credit and training facilities, supply of machines, development of marketing and stores purchase, etc., will need to be developed further in line with the larger tasks set by the Third Plan. In addition to increase and diversification of production, programmes in the Third Plan must aim at securing closer integration between small-scale and large-scale units over a wide range of industries and development of small industries as ancillaries, promoting these industries increasingly in small towns and at rural centres and providing larger facilities for cooperatives, small entrepreneurs and new entrants. An essential aspect of development will be to secure the fuller utilisation of the available capacities through the adoption of two shifts and provision of the requisite raw materials. Stores purchase policies and related programmes need to be developed more extensively in States and also at the Centre. Among other developments, reference may be made to the proposed establishment by States of depots for stocking raw materials in short supply and Small Industries Corporations for constructing industrial estates and running raw material depots and common service facility centres.

23. *Industrial estates.*—It is proposed to set up during the Third Plan period about 300 new industrial estates of varying sizes and types. They will be located as far as possible near small and medium-sized towns. It is also intended to start a number of industrial estates in selected rural areas where power, water supply and other essential facilities are available or can be readily provided. At appropriate places, particularly near large cities and towns, it is envisaged that only developed sites should be provided on which small entrepreneurs could erect their own factory buildings. With a view to promoting small

ancillary industries, it is proposed to start some functional estates for the specific purpose of accommodating small units which will work as ancillaries to the related large-scale industries. Certain suggestions have already been worked out for securing economies in the general layout of industrial estates and the construction of factory buildings, etc., which will have to be followed closely in setting up new estates.

#### EMPLOYMENT

24. On the basis of the total investment under the Third Plan, including outlay in the public sector and investment from private sources, it is estimated that the development programmes outlined above will provide part-time employment or fuller employment to about 8 million persons and whole-time employment for about 9 lakh persons.

#### EXPORTS

25. Exports of coir yarn and manufactures, handloom fabrics and handicrafts are valued at an annual average of about Rs. 21 crores. In several directions, products of small scale industries have also begun to contribute towards exports. It should be possible to secure stable and expanding markets for a growing range of products of small industries through constant attention to improvement and standardisation of quality, reduction of cost, introduction of new designs, etc.

#### STATISTICS

26. Basic statistical data for small industries for the country as a whole, which are essential for making a quantitative assessment of the impact of the programme and for drawing up new plans, are still lacking. A complete list of industrial units is, however, expected to be available through the Census of 1961 and, using this as the 'frame', it is proposed to conduct bi-annual surveys to cover initially all units which employ 10 or more workers (whether using power or not) and having a capital investment not exceeding Rs. 5 lakhs each.

## CHAPTER 15

### INDUSTRIES AND MINERALS

#### I

#### INDUSTRIES

##### REVIEW OF PROGRESS

DURING the past decade and particularly in the Second Plan period industry has grown and diversified very rapidly. Three new steel works have been completed in the public sector and two existing steel works in the private sector have been doubled. The foundations have been laid of heavy electrical, heavy machine tool and heavy machine building industries and other branches of heavy engineering. In the field of chemical industries not only greatly increased output has been achieved of basic chemicals including fertilisers but also the production of a number of new products *e.g.* urea, penicillin, synthetic fibres, industrial explosives, dyestuffs, newsprint, etc., has been undertaken. The output of many other industries has increased substantially. Organised industrial production has nearly doubled in the last 10 years, the index of industrial production having risen from 100 in 1950-51 to 194 in 1960-61.

2. There have, however, been also some noticeable shortfalls. The estimated output of finished steel in 1960-61 is only 2·2 million tons against the target of 4·5 million tons. There have been delays in the completion of important projects, such as fertiliser plants. In certain industries the targets set in the Plan were not realised.

3. Over the last decade some success has been achieved in the dispersal of industry. The location of the three new steel plants at Bhilai, Rourkela and Durgapur, the heavy machinery plant at Ranchi and the heavy electrical project at Bhopal and the lignite project at Neiveli have had the effect of creating new centres of industry in entirely new areas. In the licensing of private sector projects the claims of under-developed regions have, generally been kept in view to the extent possible.

4. The overall fixed investment in organised industry during the Second Plan period has been about Rs. 1620 crores—Rs. 770 crores in the public sector and Rs. 850 crores in the private sector as against the original estimates of Rs. 560 crores and Rs. 685 crores respectively.

##### \* APPROACH IN THE THIRD PLAN

5. *Objectives.*—The industrial plan for 1961—66 aims at laying the foundations for further rapid industrialisation over the next 15 years.

It is, therefore, essential to press forward with the establishment of basic capital and producer goods industries—with special emphasis on machine-building programmes—and also with the acquisition of the related skills, technical knowhow and designing capacity, so that in the following plan periods the growth of the economy will become self-sustaining and increasingly independent of outside aid. At the same time, provision will also have to be made to the extent possible for meeting the demands likely to be generated over the next five years for a wide range of other manufactured goods. While essential needs will be provided fully, restraint on consumption will be unavoidable, specially in the case of goods of a luxury or semi-luxury character. Further, industrial programmes will also necessarily have to take into account and will in fact be limited by the rate at which the supply of raw materials, power, etc., can be increased.

6. *Industrial policy*.—Expansion of industry will continue to be governed by the Industrial Policy Resolution of April, 1956. As in the Second Plan, the roles of the public and private sectors are conceived of as supplementary and complementary to each other.

7. *Industrial priorities*.—Having regard to the pressure on resources, fuller utilisation of existing installed capacity must take precedence over expansions or setting up of new units. Secondly, expansion of existing plants will have to be given preference over establishment of new units, since the creation of new capacity in this manner will not only be quicker but will also assist in bringing down the investment cost per unit output. As regards new developments, the accent will have to be on projects which, by contributing to exports or by replacing imports, will earn or save foreign exchange. It would not be possible to allow significant expansion of industries which are heavily dependent on the import of raw materials. On the other hand, special attention will have to be given to the development of industries for whose products there are reasonable prospects of finding export markets.

Subject to these general considerations the emphasis to be given to programmes and projects over the next few years will be broadly in accordance with the following priorities :

- (i) Completion of projects envisaged under the Second Plan which are under implementation or were deferred during 1957-58 owing to foreign exchange difficulties.
- (ii) Expansion and diversification of capacity of the heavy engineering and machine building industries, castings and forgings, alloy tool and special steels, iron and steel and ferro-alloys; and step-up of output of fertilisers and petroleum products.

- (iii) Increased production of major basic raw materials and producer goods like aluminium, mineral oils, dissolving pulp, basic organic and inorganic chemicals and intermediates inclusive of products of petro-chemical origin.
- (iv) Increased production from domestic industries of commodities required to meet essential needs like essential drugs, paper, cloth, sugar, vegetable oils and housing materials.

#### INDUSTRIAL DEVELOPMENT PROGRAMMES

8. Development programmes for industries and minerals envisaged in the Third Plan will call for a total investment of about Rs. 2993 crores in order to reach the physical targets set for achievement. Their foreign exchange cost is placed at about Rs. 1338 crores. Details of the break-up are given below :

		(Rs. crores)					
		public sector		private sector		public and private sectors	
		total	foreign exchange	total	foreign exchange	total	foreign exchange
(a) new investment							
(i) mineral development		478	200	60	28	538	228
(ii) industrial development		1330	660	1125	450	2455	1110
total	.. ..	1808	860	1185	478	2993	1338
(b) replacement	.. ..	—	—	150	50	150	50

The fixed investment of Rs. 1808 crores for industries and minerals in the public sector indicated in the table above is different from the figure of Rs. 1882 crores given elsewhere as the outlay requirements of the public sector for industries and minerals because the latter figure includes assistance to plantation industries, construction subsidy to Hindustan Shipyard, expenditure on programmes of the National Productivity Council and the Indian Standards Institution and extension of the metric system, and assistance to the private sector through the National Industrial Development Corporation and through direct loans and State participation in private undertakings.

The estimate of investment on replacements shown in the above Table falls short of the minimum requirements, but it is unlikely that due to the pressure on the available resources a programme of much larger magnitude would be possible during the Third Plan period.

9. As compared to these estimates of requirements, resources available both for the public and private sector programmes are expected

on present reckoning to be deficient. The current allocation for industries and minerals in the public sector and the estimates of resources likely to be available for private sector programmes amount to Rs. 2570 crores—Rs. 1470\* crores for the public sector and Rs. 1100 crores for the private sector.

In addition, it is hoped that about Rs. 150 crores will be forthcoming for meeting the continuing arrears of replacement and modernisation in certain pre-war industries.

As a result, it seems probable that in both sectors there will be a sizeable spill-over into the Fourth Plan and that the physical targets will not all be achieved by the end of the Third Plan period. It is difficult at this stage to forecast exactly which projects will get delayed and will spill over into the Fourth Plan and which of the physical targets may not be achieved.

10. *Public sector programmes.*—The overall cost of industrial and mineral programmes in the public sector is about Rs. 1882 crores. The provision that it has been possible to make for them within a total outlay of Rs. 7500 crores is Rs. 1520 crores, being Rs. 1450 crores at the Centre and Rs. 70 crores in the States.

The major industrial projects in the public sector included under the Third Plan are in the field of iron and steel, industrial machinery, heavy electrical equipment, machine tools, fertilisers, basic chemicals and intermediates, essential drugs and petroleum refining. In formulating the industrial programme account has been taken of the contribution towards meeting civilian needs that can be expected from expansions envisaged by Defence establishments in the field of alloy steels, tractors, trucks, electrical equipment, etc.

The major projects proposed for development as public sector undertakings by State Governments are the expansion of the Mysore Iron & Steel Works and of the Andhra Paper Mills, doubling of the Durgapur Coke Ovens and the piping of gas from Durgapur to Calcutta, the third stage expansion of F.A.C.T. for additional production of fertilisers along with associated developments at Travancore Cochin Chemicals and the organic chemicals project of the Durgapur Industries Board for the manufacture of caustic soda, phenol, phthalic anhydride and some other organic chemicals. Provision has also been made in the State plans for setting up 'industrial development areas' which will contribute to the growth of industries in regions which are at present relatively backward industrially.

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\*Excluding Rs. 50 crores to be transferred to the private sector.



11. *Private sector programmes.*—Under the Industrial Policy Resolution of April, 1956 a large field of activity is open to private enterprise outside industries listed in Schedule 'A' whose future development is to be undertaken by Government. Subject to the overall programme and the priorities indicated above, the Third Plan provides adequate scope and favourable conditions for the operations of the private sector.

According to present indications, the quantum of resources likely to be available to the private sector for financing gross fixed assets formation during the Third Plan period will be about Rs. 1250 crores as indicated below :

	(Rs. crores)
institutional agencies .. .. .	130
direct loan/participation by Central and State Governments and other assistance .. .. .	20
new issues .. .. .	200
internal resources (net of repayment liabilities) .. .. .	600
direct foreign credit/participation in capital .. .. .	300
	<hr/> 1250

The funds likely to be available fall short of the requirements of the private sector programmes which are estimated to cost about Rs. 1350 crores. There is also the problem of finding adequate foreign exchange amounting to not less than Rs. 530 crores. An effort will, however, be made to ensure the full achievement of targets in the case of industries of high priority. To this end it is intended that the industrial programmes should be regularly reviewed and allotments of foreign exchange/credit made every six months in the light of the progress achieved and the priorities which may suggest themselves from time to time.

## MAIN FEATURES OF THE INDUSTRIAL PROGRAMMES

### (a) METALLURGICAL INDUSTRIES

- 12. *Iron and steel.*—The overall targets proposed under this industry are 10·2 million tons of steel ingot capacity and 1·5 million tons of pig iron for sale. The share of the private sector in the steel target is 3·2 million tons of ingots. The existing installed capacity in the private sector is 3·0 million tons. The additional 0·2 million tons of steel capacity in the private sector is expected to come from installation of scrap based electric furnaces which will augment the supplies of billets to re-rollers. As regards saleable pig iron the output from the private sector is provisionally placed at about 0·3 million tons.

As regards the public sector, the most important task in the initial years of the Third Plan will be the rapid achievement of capacity output from the new steel plants whose construction was completed during the Second Plan period. New developments included in the Plan comprise the expansion of the Bhilai, Durgapur and Rourkela steel plants and of the Mysore Iron & Steel Works and the establishment of a new steel plant at Bokaro. In addition a project for a pig iron plant based on the use of coke from the Neiveli lignite is also included in the Plan.

The layout of the new steel plant at Bokaro is being planned for a capacity of two million tons of steel ingots, but in the first phase of development it is proposed to instal facilities for the production of one million tons.

The overall investment required for the public sector steel development programmes included in the Third Plan is estimated at Rs. 525 crores.

The total production of finished steel in the country during the Third Plan period is tentatively estimated to be of the order of 24 million tons inclusive of an output of 300,000 tons from the Bokaro steel plant in 1965-66.

13. *Tool, alloy and stainless steels.*—It is proposed to establish a special steels plant at Durgapur with an annual output of 48,000 tons. About 50,000 tons of alloy steels will be available from Defence establishments. Against the total requirements of about 200,000 tons by the end of the Third Plan, the rest of the development in this industry is envisaged in the private sector.

14. *Aluminium.*—The target of 87,500 tons set for 1965-66 is expected to be achieved on the completion of the projects already licensed in the private sector. In the context of the rising demand for electrolytic copper and the relatively meagre possibilities of substantially increasing its domestic production during the Third Plan, further expansion of capacity for aluminium, which is a substitute for copper, may be necessary.

15. *Copper and zinc.*—The production of electrolytic copper will commence in the early years of the Third Plan with the commissioning of the unit at Ghatsila by the Indian Copper Corporation. An annual production of 11,500 tons of electrolytic copper is also envisaged from the smelter and the electrolytic refinery associated with the Khetri and Daribo copper mines. The production of zinc will be taken up at the zinc smelter in Udaipur based on the zinc concentrates from the Zawar mines in Rajasthan. The annual capacity of this plant will be 15,000 tons.

## (b) ENGINEERING INDUSTRIES

16. Large-scale developments are visualised in this sector in view of the prospects of increased supplies of pig iron and steel, the emphasis on machinery manufacture and the scope in many instances for the wide employment opportunities in relation to investment. The public sector will mainly concentrate on projects for the production of heavy machinery and heavy machine building. Apart from these, targets proposed within this field are to be fulfilled mainly by the private sector.

• 17. *Castings and forgings.*—Foundry forge capacity is of crucial importance for machinery manufacturing programmes. The overall targets set in the Third Plan are 1.2 million tons of grey iron castings and 200,000 tons each of steel castings and forgings. The capacity already planned in the public sector amounts to 139,000 tons of grey iron castings and about 76,000 tons each of steel castings and steel forgings. A substantial part of the new capacity in the private sector is expected to come up in connection with the expansion of the automobile industry and the manufacture of machinery for textiles, cement, sugar, paper, etc.

18. *Industrial machinery.*—The principal projects of the public sector in this field are the heavy machinery plant near Ranchi; mining machinery project, Durgapur; the heavy electrical equipment plant, Bhopal and two other heavy electrical projects whose locations are still to be decided. The heavy machinery plant will be able eventually to supply the bulk of the equipment required for adding to steel making capacity at the rate of one million tons annually. The expanded mining machinery project will have an annual capacity of 45,000 tons of equipment. The three heavy electrical equipment projects are designed to supply from indigenous sources a wide range of electrical equipment sufficient to enable power generation to be increased at an annual rate of 2 million kW per year from 1971 onwards. Manufacture of high pressure boilers for thermal power plants is another heavy engineering project included in the Plan.

• The targets set for the production in the private sector include manufacture of complete plants to meet the requirements of cement, paper, sugar and cotton textile mills.

• 19. *Machine tools.*—As against an estimated production of Rs. 7 crores in 1960-61, the target for machine tools envisaged for the Third Plan is Rs. 30 crores. In addition, the small scale sector is expected to contribute Rs. 5 crores of machine tools. The programme envisaged in the public sector consists of the expansion of Hindustan Machine Tools and Praga Tools and the establishment of a new heavy machine

tools plant at Ranchi and another machine tool works of the same size as the H.M.T. in the Punjab. The output of machine tools in the public sector is estimated to increase to Rs. 15 crores by 1965-66.

**20. Transport equipment.**—The manufacture of electrical and diesel locomotives, the expansion of the Visakhapatnam Shipyard and the establishment of a second shipyard at Cochin are the main developments envisaged in the public sector. In the case of automobiles, the Plan envisages an annual production of 100,000 automobiles and 60,000 motor cycles, scooters and three wheelers. To reach the targets of production for automobiles without excessive strain on foreign exchange resources, the early achievement of a minimum of 85 per cent indigenous content should be given high priority. Priority has also to be given to the production of commercial vehicles over other types.

### (c) CHEMICAL AND ALLIED INDUSTRIES

**21. Fertilisers.**—The demand for nitrogenous and phosphatic fertilisers is expected to expand to 1 million tons in terms of nitrogen and 400,000 tons in terms of  $P_2O_5$  by 1965-66. A significant portion of the additional output of nitrogen is planned in the form of compound and/or complex fertilisers, so that a part of the phosphate requirements will also be met simultaneously. Additional capacity for nitrogenous fertilisers is planned both in the public and private sectors. The capacity in the public sector by the end of the Third Plan is expected to be about 730,000 tons. In the private sector proposals for setting up five new units and the expansion of an existing factory with a total capacity of about 400,000 tons of nitrogen have been approved.

As regards phosphatic fertilisers, the capacity already approved for superphosphate along with the production of complex fertilisers envisaged in the public and private sectors is expected to meet the full requirements of 400,000 tons by 1965-66.

**22. Sulphuric acid, caustic soda and soda ash.**—The capacity targets of 1.75 million tons of sulphuric acid, 400,000 tons of caustic soda and 530,000 tons of soda ash by 1965-66 represent considerable expansion in these industries during the Third Plan period. Both in the case of caustic soda and soda ash, self-sufficiency is envisaged by the end of the Third Plan period.

**23. Organic chemicals.**—Large-scale developments are envisaged in this field. The development of allied chemical industries like plastics, dyestuffs and drugs has led to the creation of favourable conditions for the development of the organic chemical industry. The basic chemicals and

intermediates project covers the manufacture of 40 organic intermediates with an aggregate output of 25,160 tons. Provision is also being made for its further expansion in due course by about 15,000 tons.

- **24. Petroleum refining.**—The requirements of petroleum products by 1965 are estimated at 11·7 million tons. The capacity of the refineries in the private sector is about 5·6 million tons. The two refineries at Nunmati and Barauni in the public sector under construction will have a capacity of 2·3 million tons. When these refineries are completed the total production of petroleum products will be 7·9 million tons. The gap between requirements and production will be to a large extent bridged when the third public sector refinery with an annual capacity of 2 million tons of crude throughput is established in Gujarat. There will, however, be about 4 lakh tons of surplus motor spirit. Various steps are at present under consideration for minimising the problem arising from the production of surplus motor spirit.

**25. Pharmaceuticals and drugs.**—The programmes visualised in this field include the establishment of the synthetic drug project at Sanatnagar, Andhra Pradesh, the antibiotics plant near Rishikesh and the phyto-chemical plant in Kerala. Along with the developments envisaged in the private sector, it is expected that the country will be nearly self-sufficient in almost all the major items of drugs by the end of the Third Plan period.

**26. Plastics.**—A large expansion in the manufacture of plastic materials is visualised for which an overall target of 85,000 tons is envisaged. The availability of petro-chemical raw materials provides favourable conditions for expansion in this field.

**27. Cement.**—The capacity target for cement fixed at 15 million tons by 1965-66 represents about 50 per cent increase over the level expected to be reached by the end of the Second Plan.

#### (d) CONSUMER GOODS INDUSTRIES

**28. Cotton textiles.**—The requirements of cotton textiles at the end of the Third Plan have been estimated at 9300 million yards, inclusive of 850 million yards for export. Out of the total target for cotton cloth of 9300 million yards, 3500 million yards have been allocated as the share of the decentralised sector (handloom, powerloom and khadi). To achieve the additional production in the mill sector, it is envisaged that about 25,000 automatic looms will have to be installed during the Third Plan. It will also be necessary to increase the active spindleage of the mills to about 16·5 million as compared to 12·7 million at the end of the Second Plan.

29. *Rayon and staple fibre.*—The programme for the rayon and staple fibre industry envisages expansion of capacity from about 100 million lb (52.3 million lb of rayon filament and 48 million lb of staple fibre) at the end of the Second Plan to 215 million lb (140 million lb of rayon filament and 75 million lb of staple fibre).

30. *Paper and newsprint.*—To meet the estimated demand of 700,000 tons of paper and paper board by 1965-66, it is proposed to increase the capacity of the industry from the present level of 410,000 tons to 820,000 tons by the end of the Third Plan period. In the case of newsprint, expansion from 30,000 tons to 150,000 tons has been proposed. With increasing pressure on conventional raw materials, expansion of the paper and newsprint industry will have to depend heavily on the use of bagasse during the Third Plan period.

31. *Sugar.*—The target envisaged for the Third Plan for the sugar industry is 3.5 million tons per year. Cooperative enterprises are expected to make further progress under this industry during the Third Plan and it is estimated that their share of the overall mill capacity will rise to about 25 per cent. The production of sugar in the country is expected to meet the demand in full and the surplus will be exported.

32. *Vegetable oils.*—The overall production of vegetable oils, inclusive of coconut oil, is expected to amount to 2.9 million tons by 1965-66. The programme for the Third Plan includes the expansion of production of cotton seed oil to one lakh tons and an increase in the production of oil from solvent extraction of oil cakes from its current level of 40,000 tons to about 160,000 tons per annum.

33. *Overall increase in industrial production.*—The general index of industrial production is expected to reach in 1965-66 the level of 329 (1950-51=100) as against 194 provisionally estimated for 1960-61 and 139 for the last year of the First Plan.

## II

### MINERALS AND OIL

#### REVIEW OF PROGRESS

During the first two Plan periods, attention was focussed mainly on the systematic and detailed investigation of the country's resources of important minerals with a view to assessing more accurately both their quantity and quality and on the adoption of measures to ensure their systematic development and conservation. These measures began to bear fruit during the Second Plan and in the past few years the

output of certain minerals, such as coal, iron ore and bauxite, has increased substantially.

2. *Coal*.—The Second Plan set a target of production of 60 million tons for coal, that is, 22 million tons over the level of production in 1955. Of this addition 12 million tons were allocated to the public sector, the balance of 10 million tons being left to be raised by the private sector from their existing workings and areas immediately contiguous to them. While the expansion of production from existing workings in both the public and the private sectors did not present any serious difficulty—the target set therefor had been more than fulfilled—the establishment of additional production from new collieries made the task of the public sector a formidable one, since preliminaries like the acquisition of coal bearing areas, detailed prospecting and blocking out of reserves were time consuming. This and the shortage of experienced technical personnel for supervisory posts and the initial difficulties in securing foreign exchange resulted in rather slow progress during the early years of the Plan. As against a target of 60 million tons, production during 1960-61 has been 54·62 million tons. Though the actual production has fallen short of the target, both the public and the private sectors have established capacity for achieving a rate of production commensurate with the targets set for them, and the production during the last quarter of 1960-61 is equivalent to an annual rate of well over 60 million tons. The production of coal increased from 32·31 million tons in 1950 to 38·23 million tons in 1955 and reached 54·62 million tons in 1960-61.

3. The passing of the Coal Mines (Conservation and Safety) Act, 1952 gave Government powers to enforce conservation measures. Stowing which was till then compulsory from the point of view of safety was extended to cover conservation. Measures were taken to regulate the output of coking coal with a view to conserving the limited reserves available. Washing being one of the measures for conservation, the Second Plan provided for additional washing capacity of 6·4 million tons to be achieved by the establishment of 4 central washeries and the installation of a washing unit in the Durgapur steel plant. A capacity of 2·4 million tons has been set up and the rest of the capacity will be established during the early years of the Third Plan.

4. Other measures of conservation adopted included a phased programme for the substitution of coking coal consumed by non-essential consumers by non-coking coal and provision for the grant of a special subsidy to mines which are handicapped by adverse factors, such as gassiness, depth of working, etc. Besides the above measures,

steps are being taken for the amalgamation of small and uneconomic collieries as recommended by the Committee on Amalgamation of Small Collieries.

5. *Mineral oil.*—In view of the great need to establish indigenous sources of oil, the nucleus of an organisation for oil exploration was set up by Government towards the end of the First Plan period. The Second Plan provided for intensification of the effort and the building up of an adequate organisation for it. The Oil and Natural Gas Commission was converted into a statutory body. It undertook geological surveys, geo-physical investigations and exploratory drilling for oil in the Punjab, Cambay, Uttar Pradesh and Upper Assam.

Though there is at present no production of oil in the country, except for a small quantity obtained from the Digboi area in Assam, an annual production of 2.75 million tons will soon be obtained from the Nahorkatiya oilfield which is being developed by the Oil India Limited. The crude oil is to be piped to two new refineries, which are being built in the public sector near Gauhati (Assam) and Barauni (Bihar) with a capacity of 0.75 million tons and 2 million tons respectively.

6. *Mineral production.*—During the last ten years the value of mineral production increased from about Rs. 83 crores in 1950 to about Rs. 159 crores in 1960. The most marked increase is in the case of iron ore, the output of which rose from about 2.97 million tons in 1950 to about 10.5 million tons in 1960. This increase in supply is due to the expansion of steel production in the country and the development of an export trade demand for iron ore. Other significant increases are in regard to coal (from 32.3 to 51.8 million tons), limestone (2.9 to 12.5 million tons), chromite (17,000 to 99,000 tons), bauxite (64,000 to 377,000 tons) and gypsum (204,000 to 982,000 tons).

7. *Mineral surveys.*—With the expansion during the first two Plan periods of the Geological Survey of India and the Indian Bureau of Mines, geological mapping was extended to cover new areas, and some important mineralised areas were mapped on larger scale maps. In addition, detailed prospecting was undertaken for coal in certain selected coalfields, for iron ore and for non-ferrous metals, specially copper, lead and zinc in Khetri (Rajasthan), Sikkim, and Zawar (Rajasthan). Besides proving the reserves in the areas investigated in detail, the investigations carried out during the last ten years have shown that the available reserves of some of the minerals are much larger than estimated hitherto.



## PROGRAMMES FOR THE THIRD PLAN

8. The Third Plan envisages intensive efforts to explore the country's mineral resources with a view to—

- (a) locating workable reserves of minerals and metals, the requirements of which are being met today either wholly or partly by imports;
- (b) proving additional reserves of minerals like iron ore, bauxite, gypsum, coal, limestone, etc., which can be developed to meet the expanding requirements of the economy; and
- (c) proving reserves and establishing new mines for the production of minerals like iron ore which can be exported.

These objectives call for intensification in the coming years of geological mapping, a wider adoption of geo-physical and geo-chemical methods, and detailed prospecting of promising mineral occurrences so as to assess their extent and quality with a view to development.

## COAL

9. Based on the target set for the different industries which consume coal and the traffic expected to be carried by the railways, the demand for coal in the last year of the Third Plan is estimated at 97 million tons. This target will require production to be stepped up by 37 million tons over the Second Plan target of 60 million tons. Though the latter has not been fully achieved, capacity commensurate with the target set for the Second Plan has been realised.

The increase required during the Third Plan is of such magnitude that it will necessitate the opening of a large number of new mines, particularly in the public sector, both in the areas which are already developed and in entirely virgin areas. This will call for a great deal of effort and of capital investment. Actual production of coking coal of superior grades (Selected grades and Grade-I) during 1960 was about 13 million tons and that of blendable coal about 2 million tons. On the basis that a part of the requirements of metallurgical coal industries will be met by blendable coal, the net minimum additional output of coking coal and blendable coal required by the end of the Third Plan period is estimated at about 10 million tons and 2 million tons respectively. The net additional output of superior grades of non-coking coal required for the railways and other industries is estimated at about 10 million tons. The most important aim in the coal programme during the Third Plan is to ensure that the necessary quantities of coking and blendable coals are made available to the steel plants and merchant cokeries and of superior grades of non-coking coal to the railways and other industries which necessarily require them.

10. *Allocation of additional production.*—Bearing in mind the primary objective of the coal programme set out above, the capacity of the private sector to expand production from their existing mines and areas nearby and Government's policy which reserves to the public sector the establishment of new mines, 20 million tons of the additional production has been allocated to the public sector and 17 million tons to the private sector.

11. *Public sector programme.*—Additional production in the public sector to the extent of 3 million tons is to be obtained by the expansion of the Singareni collieries in Andhra Pradesh. The balance of 17 million tons is to be raised by the National Coal Development Corporation.

12. The major portion of the additional production in the private sector (11 million tons) will be from existing mines and the balance from new sinkings in existing leasehold areas.

13. *Conservation.*—Viewed against requirements of coking coal for steel production, the reserves of coking coal as known at present are rather limited—being only of the order of 2800 million tons. On the other hand there are large reserves of high grade iron ore. This situation calls for the adoption of measures which will, on the one hand, conserve the limited supplies of coking coal—measures such as stowing, washing and blending, which have the effect of extending the life of the reserves—and on the other, economise its consumption. In view of the increasing difficulty experienced in recent years in stepping up the output of better grades of coal, there is urgent need for economy in their use. The types, grades and sizes of coal that should be supplied to different industries have been laid down after careful study of technical aspects by the Fuel Efficiency Committee of the Coal Council.

14. *Stowing.*—Stowing as a measure of conservation will need to be intensified during the Third Plan, as a part of the additional production is to come from existing mines by depillaring operations. The Plan envisages the establishment by the Coal Board of 7 ropeways, 4 in the Jharia coalfield and 3 in the Raniganj coalfield, for the collection and transport of sand from the Damodar river to convenient points near groups of collieries.

15. *Transport.*—Concentration of coal production in the Bengal-Bihar coalfields poses serious problems of transport. While the size of the problem can be mitigated to some extent by increasing production in outlying coalfields, the magnitude of the coal production programme during the Third Plan will further increase the pressure on the Railways for moving coal to distant consumers. The capacity of the Railways is being increased but, with a view to reducing pressure on rail transport,

other measures such as increased movement by road, particularly in the case of consumers situated near coalfields and stepping up movement by the rail-cum-sea route have also to be adopted. Proposals for giving effect to such measures are under examination.

16. *Coal washeries*.—The expansion of steel production envisaged in the Third Plan is estimated to require an additional washing capacity of 12·7 million tons in terms of raw coal. Additional capacity of 3·2 million tons will come from the expansion of washeries already in existence or in course of erection, the balance of the capacity needed being obtained from new washeries which it is proposed to establish. The Plan also includes washeries for non-coking coal required for use by the Railways. It is proposed to undertake detailed investigations of the washability characteristics of non-coking coal drawn from different collieries and a study of the economics of washing such coal.

17. *Neiveli Lignite Project*.—The project for the integrated development of the lignite deposits at Neiveli in South Arcot district (Madras) included in the Second Plan envisaged:—

- (i) an annual output of 3·5 million tons of raw lignite to meet the requirements of—
  - (a) a thermal power plant with a capacity of 250 M.W.,
  - (b) a fertiliser plant for the production of 70,000 tons of fixed nitrogen in the form of urea, and
  - (c) a briquetting and carbonisation plant for producing 380,000 tons of carbonised briquettes; and
- (ii) a clay washing plant for the production of 6000 tons per annum of white china and ball clay.

The Third Plan envisages (a) the completion of the programmes included in the Second Plan, (b) expansion of thermal power capacity by 150 M.W., and (c) stepping up of the output of lignite from 3·5 million tons envisaged in the Second Plan to 4·8 million tons in order to meet the fuel requirements of the expanded thermal power plant.

18. *Mineral oil*.—The programme relating to mineral oil envisages (a) exploitation by the Oil India Limited of the reserves proved in their leasehold areas in Assam, (b) further exploration by the Oil and Natural Gas Commission to locate and prove reserves of oil and establish additional production, (c) the completion of the refineries under construction at Gauhati and Barauni respectively, and establishment of a new refinery in Gujarat with a capacity of about 2 million tons, (d) establishment of pipelines for the transport of petroleum products, and (e) establishment

of facilities for the distribution by a Government agency of the products of the public sector refineries and the deficit products imported on favourable terms.

19. The programme for the Third Plan envisages a total expenditure of Rs. 115 crores as against only Rs. 26 crores in the Second Plan and will cover most of the promising sedimentary areas in the country, including the Cauvery basin. It has also been decided to invite foreign oil explorers to join the quest for oil in India, subject to mutually acceptable terms. An agreement has been negotiated with the Burmah Oil Company and a new basis for collaboration in the exploration and production of oil in Assam has been arrived at. By the end of the Third Plan period indigenous production of crude oil is likely to reach a level of 6.5 million tons.

20. *Iron ore.*—On the basis of the target for iron and steel envisaged by the end of the Third Plan, the iron ore requirements are estimated at 20 million tons, and requirements for export will be of the order of 10 million tons. To meet these requirements a capacity target of 32 million tons has been fixed for iron ore in the Third Plan.

The Plan envisages the completion of the Kiriburu iron ore project which is expected to start production in 1963 and the development of the iron ore deposits in the Bailadila area of Madhya Pradesh for an annual production of 6 million tons.

21. *Other mineral projects.*—Among the other mineral projects included in the Third Plan are:

- (i) Exploitation of the copper deposits in Khetri and Daribo (Rajasthan) and the establishment of a smelter with a capacity of 11,500 tons of electrolytic copper.
- (ii) Exploitation of the copper deposits in Rangpo (Sikkim) and the establishment of a concentration plant.
- (iii) Exploitation of the pyrites deposits in Amjor (Bihar) for the manufacture of 84,000 tons of elemental sulphur.
- (iv) Development of the diamond fields in Panna (Madhya Pradesh).
- (v) Further exploration and exploitation of the gold fields in Kolar and exploration in Hutti.

22. *Mineral surveys.*—For the implementation of the programme of intensified mineral investigation, the Plan envisages further expansion of the Geological Survey of India and the Indian Bureau of Mines. The programmes of these organisations include detailed work on coal, iron ore, manganese ore, chromite, bauxite, limestone, copper, lead and zinc and manganese ore in different parts of the country.

## CHAPTER 16

### TRANSPORT AND COMMUNICATIONS

THE rapid development of the economy over the past decade has placed heavy demands on the transportation system. Although considerable expansion in transport capacity has taken place during the first two Plans, it is only with difficulty that the transportation system has been able to meet the growing demands. The railways, in particular have been working under some measure of strain throughout most of the period.

2. The main task in the field of transportation in the First Five Year Plan was the rehabilitation of over-aged assets which had been subjected to great strain during the preceding decade. Large amounts had to be set apart for rehabilitation of railway rolling stock and for track renewal as also for replacement of over-aged shipping tonnage and equipment of ports and harbours. In the Second Plan again a large provision had to be made, particularly in the case of the railways, for rehabilitation of over-aged assets. Emphasis in the Second Plan, however, shifted to programmes required to augment line capacity on different sections of the railways and to the procurement of additional rolling stock to meet the increasing demand for railway transport arising from the increased production in the agricultural and industrial sectors of the economy.

3. Progress in programmes for the development of transport and communications during the First and Second Plans has been on the whole satisfactory. Over this period the number of wagons on line on the railways (in terms of four-wheelers) has increased from 222,441 to 341,041, that of locomotives from 8461 to 10,554 and of coaches (units) from 20,502 to 28,171. Extensive line capacity works have been undertaken by the railways, which include, among others, the doubling of about 1300 miles of single track and the electrification of about 800 miles. The new lines added to the system have amounted to 1200 miles; in addition about 400 miles of lines dismantled during the war were restored during the period.

4. There has been a large extension in the road mileage. The length of surfaced roads is expected to have increased from 97,500 miles in 1950-51 to 144,000 miles in 1960-61 and that of unsurfaced roads from 151,000 to well over 250,000 miles. The number of goods vehicles on the road has nearly doubled during the period, that is, from about 81,000 in 1950-51 to 160,000 in 1960-61.

5. The tonnage of Indian shipping increased from about 3·9 lakh GRT in 1950-51 to 9 lakh GRT at the end of the Second Plan. The capacity of the major ports has increased over the period from about 20 million tons to about 37 million tons. Several projects were taken up in the Second Plan which are still under execution and, on their completion, the total capacity of the major ports is likely to be over 45 million tons.

6. The capacity of civil air transport has increased considerably since 1953 when the air services were nationalised. The capacity in ton miles offered by the Indian Airlines Corporation has gone up from about 46 millions in 1953-54 to about 69 millions in 1960-61 and that offered by the Air India International over the period from 17 millions to 103 millions.

7. The originating traffic on the railways has increased from 91·5 million tons in 1950-51 to 154 million tons in 1960-61. The average lead of freight traffic has gone up during the period from 292 miles to 354 miles. Thus, while in terms of tons originating the volume of traffic on the railways has increased over the period by about 69 per cent, in terms of ton miles it has gone up by over 100 per cent. Freight traffic in terms of ton miles carried by road transport is estimated to have increased three-fold over the period. The demand for transport, on the whole, has risen at a substantially faster rate than the increase in national income or the growth of production in any major sector of the economy over the period.

8. *Coordination of transport : approach in the Third Plan.*—The Committee on Transport Policy and Coordination which was constituted in July, 1959, to advise on long-term transportation policy, and against the background of this policy, to define the role of the various means of transport in the next five to ten years, submitted its Preliminary Report in February, 1961. In the Report the Committee has presented detailed factual material pertaining to road-rail coordination and has raised issues considered important from the point of view of formulating a long-term policy for the country. When the final report of the Committee is available, the programmes for transport in the Third Plan will be reviewed. There are, however, certain general considerations affecting development of transport over the next few years which may appropriately be mentioned at this stage. In the first place, it must be recognised that during the Third Plan, the railways will inevitably have to continue to carry the bulk of traffic in heavy goods like coal, iron ore and other materials for the steel plants, etc. Secondly, while there is a general shortage of transport in the country

today, which is likely to continue for some time, this will not necessarily preclude competition between rail and road transport over certain routes and in respect of certain commodities. In preparing detailed plans for increasing line capacity over various sections of the railway system, the railways will have to take account of the possible future development of road transport in the regions concerned. Considerations of coordination have still greater importance in regard to proposals for the construction of new railway lines. As in the first two Plans, most of the new lines to be opened in the Third Plan are required either to meet the operational needs of the railways or for the movement of basic commodities like coal and mineral ores. The third consideration pertains to the financial position of the Indian Railways. The Committee has drawn attention to some unfavourable factors affecting the financial prospects of the railways which have begun to manifest themselves and has raised the relevant issues for consideration.

9. *Allotment for transport and communications in the Third Plan.*—The amount allotted for the programmes relating to transport and communications in the public sector in the Third Plan is Rs. 1486 crores, and is distributed between the various programmes as shown in the Table below:

Provision for transport and communications in the Third Plan

programmes	(Rs. crores) provision
railways	890*
roads and road transport	297
shipping, inland water transport, ports and lighthouses	153@
civil air transport	55
posts and telegraphs (including teleprinter factory)	68
tourism	
broadcasting	
other transport and communications	
total	1486

- The estimated costs of certain programmes exceed somewhat the financial provisions mentioned above. Thus, the total estimated cost of the railways' programme, including stores suspense, is about Rs. 1325 crores, of the road programmes about Rs. 324 crores, of the major ports Rs. 115 crores and of posts and telegraphs about Rs. 78 crores.

\* Excludes Rs. 350 crores to be contributed by the railways from their depreciation fund and Rs. 35 crores required by the railways for stores suspense account.

@ Includes Rs. 20 crores expected to be contributed by the major ports from their own resources.

10. *Railways*.—The railway development programme in the Third Five Year Plan has been formulated on the basis of the originating traffic reaching a figure of 245 million tons in 1965-66. Of the total increase of 91 million tons of freight traffic anticipated during the Third Plan, 79.5 million tons are accounted for by coal, steel and the raw materials of steel, cement, iron ore for export and the railways' own stores and the remaining 11.5 million tons representing increase in general goods traffic. These estimates are necessarily tentative.

11. The programme for rolling stock provides, besides replacement of the over-aged stock, for the acquisition of 90,447 wagons (in terms of four-wheelers), 5025 coaching vehicles and 1150 locomotives. The programme for workshops includes, among other works, establishment of production of electric locomotives at Chittaranjan in collaboration with the Heavy Electricals Limited, Bhopal. Provision is also included for the manufacture of diesel locomotives.

The line capacity works provide for doubling over 1600 miles of single track and such other works as remodelling of yards, opening of crossing stations and provision of crossing loops, etc. The main consideration in formulating the line capacity works is to strengthen the trunk routes and the lines on which traffic in heavy commodities like coal and iron ore is required to be moved in increased quantities in future.

12. The programme for electrification provides mainly for the completion of work on those sections which were taken up in the Second Plan. The only new section which, for the present, is proposed to be taken up during the Third Plan period is that from Mughal-sarai to Kanpur.

13. The programme of track renewal provides for overtaking a large part of arrears of track renewal by the end of the Plan period. Provision is made for complete track renewal of over about 5000 miles, rail renewals over about 2500 miles and renewal of sleepers over about 2250 miles.

14. Provision is made for the construction of about 1200 miles of new lines during the Third Plan period. Besides the new lines carried forward from the Second to the Third Plan, namely, Garhwa Road-Robertsganj, Sambalpur-Titlagarh and Bimlagarh-Kiriburu, the programme provides for the following further new lines: Jhund-Kandla, Madhopur-Kathua, Udaipur-Himmatnagar, Delhi avoiding lines, Diva-Panvel-Kharpada with extension to Uran, Patharkandi-Dharmanagar, Guna-Maksi, Ranchi-Bondamunda, Hindumalkot-Sri-ganganagar, Ghaziabad-Tughlakabad, Bailadilla-Kotavalasa, and



the new line to Haldia Port. Provision is also made for construction of 200 miles of new lines required in connection with the development of the coal industry. In addition certain other lines are under consideration for inclusion in the railway programmes: (i) Mangalore-Hassan, (ii) Bangalore-Salem, (iii) Manamadurai-Virudhunagar, and (iv) the rail link from Sukinda/Daitari mining areas in Orissa to the main line from Kharagpur to Cuttack.

15. It is proposed to provide about 54,000 new quarters for the staff in the Third Plan in addition to the quarters that will be constructed as part of composite projects. The programme for amenities for staff provides for expansion of medical facilities and improvement in the staff quarters, drainage, water supply and electrification and recreational facilities in workers' colonies.

16. The railway development programme in the Third Plan has continued to keep in view the objective of attaining self-sufficiency in regard to the requirements of the railways. To the extent possible efforts will be made in the Third Plan period to manufacture diesel and electric locomotives and other items of equipment which are still being imported.

17. *Roads.*—The road programmes for the Third Plan are being formulated in accordance with the broad objectives laid down in the twenty-year road development plan for the period 1961—81, which has been drawn up by the Chief Engineers of the State and the Central Governments. The broad objective of this plan is that no village in a developed and agricultural area should remain more than four miles from a metalled road and  $1\frac{1}{2}$  miles from any type of road. Under this plan, the total mileage proposed to be reached by 1981 is 252,000 miles for surfaced roads and 405,000 miles for unsurfaced roads.

18. It is roughly estimated that during the Third Plan it will be possible to add about 25,000 miles of surfaced roads to the existing network as against about 22,000 miles added during the Second Plan period. A substantial part of the provision for road programmes is intended for improvement of the existing roads with a view to enabling them to meet the requirements of increasing traffic, particularly heavy vehicular traffic; these include the widening of roads and upgrading their surfaces and providing missing links and bridges, etc. The programme for National Highways in the Third Plan provides for the completion of a number of important road and bridge works carried forward from the Second Plan and for the improvement of a few sections of the new highways added recently to the National Highways

system, and for the construction of the Vivekanand bridge by-pass near Calcutta and a few missing links on the existing highways. It is proposed to add one more road to the National Highways system, namely, the road from North Salamara to the Brahmaputra bridge with a length of about 100 miles.

19. Special consideration is being given to road development in rural areas. Specific provisions have been set apart for this purpose in the plans of several States, apart from the provision available for the development of rural roads under the programmes of local bodies and community development. Efforts are being made to achieve the desired coordination between various agencies responsible for road development in rural areas.

20. *Road Transport*.—Expansion of commercial road transport in the Third Plan will depend largely on the manufacturing capacity of the automobile industry. It is roughly estimated that the total number of commercial vehicles will increase by about 82 per cent from about 200,000 in 1960-61 to 365,000 in 1965-66. The number of goods vehicles will increase over the period from about 160,000 to 285,000 and the number of stage carriages from about 50,000 to 80,000.

21. Programmes for the development of Government road transport undertakings in the States are estimated to cost Rs. 26 crores in the Third Plan. It is expected that about 7500 vehicles will be added to the fleets of these undertakings during the period of the Plan.

22. In view of the great pressure on railway transport and the need for coordinated development of various forms of transport, in the course of the Third Plan, it may be necessary for the public sector to extend its activities in the field of transport of goods by road. A number of questions, such as the form of organisation and the scope of the programme, will be considered further in the light of the recommendations of the Committee on Transport Policy and Coordination and in consultation with the State Governments.

23. *Inland Water Transport*.—The programme for the development of inland water transport in the Third Plan has been formulated in the light of the recommendations made in the report of the Inland Water Transport Committee (1959). The cost of the programmes is estimated at Rs. 7.5 crores, which includes Rs. 6 crores in the Central sector and Rs. 1.5 crores in the State plans. The programme in the Central sector provides, besides the carry-over works from the Second Plan, for a pilot towing project to be undertaken by the Ganga Brahmaputra Board in Sunderbans, for purchase of dredgers and launches for

Sunderbans and Brahmaputra and for setting up of a central organisation to advise on matters relating to inland water transport. In the State sector provision has been made, among other schemes, for the improvement and extension of the West Coast canal in Kerala, improvement of Taldanda and Kendrapara canals in Orissa and for the development of navigational facilities in the Rajasthan Canal.

24. *Shipping*.—The development programme for shipping depends largely on the availability of foreign exchange for this purpose, and of necessity has to be modest at the present stage. A provision of Rs. 55 crores has been made for shipping in the Third Plan. In addition, a sum of Rs. 4 crores is likely to be available from the Shipping Development Fund and the shipping companies are expected to contribute Rs. 7 crores from their own resources. A little more than one-half of the total amount is proposed to be spent in the private sector and the balance on the programmes of the two Corporations in the public sector. It is expected that about 57 ships with a tonnage of 375,000 GRT will be acquired during the Plan period. Of the total tonnage, about 194,000 GRT is estimated to be required for replacement of over-aged ships and the balance of 181,000 GRT will be available for addition to the existing tonnage. This will increase the total tonnage available to 1.1 million GRT. About 216,000 GRT will be acquired in the private sector and the remaining 159,000 GRT in the public sector. Of the total tonnage, 132,500 GRT are required for the coastal trade and the remaining 242,000 GRT for the overseas trade. A major part of the programme for coastal shipping relates to the replacement of over-aged ships. The programme for shipping includes provision for four tankers, one for the coastal and three for the overseas trade.

25. *Ports and Harbours*.—The main objective in the Third Plan underlying the schemes in respect of the existing major ports is to maintain and improve the facilities already available. It is expected that the capacity of major ports by the end of the Third Plan will be 49 million tons. Two important schemes have been included in the Plan with a view to the maintenance and preservation of the Calcutta Port, namely, the construction of an ancillary port at Haldia and the construction of a barrage on the river Ganga at Farakka. At Haldia, which will be located 56 miles downstream from Calcutta, it is proposed to provide facilities for handling bulk cargo such as coal, iron ore and foodgrains, and also for lightening of general cargo vessels. The barrage on the Ganga is considered vital for the improvement of the draft conditions in the river Hooghly. The programme for the Calcutta Port also provides, among other schemes, for training works

for improving the Balari Channel. The programme for the Bombay Port includes provision for the dredging of the main harbour channel, modernisation of the Princes and Victoria Docks and expansion of the Ballard Pier etc. At Madras, provision is made for additional ore and coal yards and mechanical equipment for handling iron ore. The programme for Vishakhapatnam provides for the completion of the additional four-berth scheme and the ore-loading installations at the port. At Kandla provision is made, among other schemes, for the completion of two additional berths. The programme for the development of major ports also includes two projects for the upgrading of two minor ports into all-weather ports, namely, Tuticorin and Mangalore.

26. The total cost of the port development programme is estimated to be of the order of Rs. 115 crores. This includes Rs. 80 crores for the programme of the major ports, Rs. 25 crores for the barrage at Farakka and Rs. 10 crores for the development of new major ports at Mangalore and Tuticorin.

27. The programme for the minor ports included in the Plan is estimated to cost about Rs. 15 crores. The programme has been formulated on the basis of the recommendations of the Intermediate Ports Development Committee. The capacity of all the minor ports is estimated to increase to about 9 million tons on completion of the schemes included in the Third Plan as against their present capacity of about 6 million tons.

28. A provision of Rs. 6 crores has been made for the development of lighthouses and lightships. Among the new schemes included in the Plan is one for a lighthouse tender estimated to cost Rs. 140 lakhs.

29. *Civil Aviation*.—Extensive development works were undertaken in the Second Plan at Bombay (Santa Cruz), Calcutta (Dum Dum) and Delhi (Palam) airports to facilitate the flights of jet aircraft and these will be completed during the Third Plan period. Priority will be given in the Third Plan to programmes for extension of the existing runways wherever necessary, including the development of an airfield at Madras to facilitate jet operations, and for strengthening and extending the runways at Lucknow, Gaya and Ahmedabad aerodromes, which are alternates for the international airports. Provision has also been made for construction of a number of new aerodromes and airstrips including those required to develop tourist traffic.

30. *Air Corporations*.—The operating fleet of the Air India International at present consists of 3 Boeings and 9 Super-Constellations.

The programme in the Third Plan provides for the purchase of four additional jet aircraft. The operating fleet of the Indian Airlines Corporation at the end of 1960-61 consisted of 54 Dakotas, 5 Skymasters and 10 Viscounts. The programme in the Third Plan provides for the purchase of 4 Viscounts and 25 modern aircraft to replace Dakotas. It is proposed to retain about 10 Dakotas in service at the end of the Third Plan for freight services.

31. *Tourism*.—A provision of about Rs. 8 crores is made in the Plan for the development of tourism. As in the Second Plan, the programme in the Third Plan concentrates largely on provision of facilities for accommodation and transport. Measures are under consideration for assisting the hotel industry with loans for the construction of new hotels and improvement or expansion of existing ones.

#### COMMUNICATIONS

32. The expansion of industrial and commercial activity in the past ten years has led to a growing demand for communication facilities. Over the period of the first two Plans, the number of postal articles handled in the country increased by about 80 per cent. i.e., from 2270 million to about 4054 million. The number of telegrams increased by about 43 per cent, that is, from 27·9 million in 1950-51 to 40 million in 1960-61. The number of trunk calls handled by the Telephone Department increased about five-fold, i.e., from about 7·1 million in 1950-51 to about 34 million in 1960-61. Despite substantial expansion in their capacity, the posts and telegraphs services as also the other communication services in the country have been working under a measure of strain during recent years.

33. *Posts and Telegraphs*.—The cost of the programme of the Posts and Telegraphs Department included in the Third Plan is estimated at Rs. 77·6 crores. This includes Rs. 49·6 crores for local and trunk telephone services including trunk cables, Rs. 2 crores for telegraph services, Rs. 11 crores for buildings, Rs. 13 crores for telecommunication facilities required in connection with the railway electrification and for demands of the other administrations and Rs. 2 crores for miscellaneous schemes.

34. The programme for local telephone service in the Plan provides for about 200,000 new direct telephone connections and in addition for conversion of 50,000 manual lines into auto lines. That for trunk telephones provides for the installation of ten trunk automatic exchanges and a number of additional manual trunk exchanges and about 2000 public call offices during the Plan period. The project

for laying coaxial cables between Delhi and Calcutta and Delhi and Bombay, will be completed and provision is made for coaxial cables being laid between Bombay, Madras and Coimbatore and between Bombay and Nagpur, and Delhi and Amritsar.

35. The number of telegraph offices in the country will be increased from about 6450 in 1960-61 to 8450 in 1965-66. Provision is made for the installation on an extensive scale of modern devices like teleprinters and tape relay systems to avoid repeated handling of telegrams.

36. The number of post offices in the country will be increased from about 77,000 in 1960-61 to about 94,000 at the end of the Third Plan.

37. *Other communication services.*—The Third Five Year Plan includes provision for setting up a factory for the manufacture of teleprinters. The factory is expected to produce 1000 teleprinters a year by 1963-64. The Indian Telephone Industries have a development programme in the Third Plan estimated to cost Rs. 2.8 crores. This will enable them to produce by the end of the Third Plan period about 100,000 exchange lines and about 160,000 telephone instruments per annum.

38. The programme for the overseas communication services in the Third Plan provides for an increase in the number of radio transmitters from 22 in 1960 to 31 at the end of the Third Plan, and for an increase in the number of telephone transmission circuits from 7 to 10 during the same period. Provision is also made for the introduction on an increasing scale of modern automatic error detection devices and for the development of leased channels and telex services for achieving speed and efficiency of service.

39. The programme of the India Meteorological Department provides for further progress being made with the modernisation of equipment at important observatories. The Department also proposes to start a Northern Hemispheric Collection and Analysis Centre in New Delhi to collect, study and disseminate meteorology data for the northern hemisphere. An Institute of Tropical Meteorology will be established at Poona for advanced research and training in tropical meteorology.

40. *Broadcasting.*—The main objective of the development programme for broadcasting in the Second Five Year Plan was to extend the available services to as wide an area as possible largely through

internal short wave transmitters and to strengthen the external broadcast services. The objective in the Third Five Year Plan is to make the internal coverage more effective by expanding the medium wave broadcast service and by strengthening the arrangements for pre-recording of programmes. The medium wave internal services which now cover 37 per cent of the total area and 55 per cent of the population will get extended to include 61 per cent of the area and 74 per cent of the population of the country. The programme in the Third Plan also includes provision for further improvement of the external broadcast services. Among other schemes included in the programme, mention may be made of a television centre proposed to be set up at Bombay.

41. Provision has been made for expansion of community listening facilities in villages, and it is hoped to provide about 32,000 new sets during the period of the Third Plan. These will be supplemented by sets provided under the community development programme.

## CHAPTER 17

### EDUCATION : GENERAL AND TECHNICAL

#### INTRODUCTION

ONE of the major aims of the Third Plan is to expand and intensify the educational effort and to bring every home within its fold so that, from now on, in all branches of national life, education becomes the focal point of planned development. Education programmes embodied in the Third Plan are comprehensive in scope. In this Chapter an attempt is made to outline briefly the major aims in planning general, technical and other specialised education, and to describe some of the leading features and problems of the programmes which form part of the Third Plan.

2. Of all the resources for development, perhaps the most fundamental at the present time is trained manpower. The extent of trained manpower available and the training facilities established constitute a major determinant of the measure of advance which can be achieved in different directions. As the economy grows, there has to be emphasis not only on numbers but also on quality and experience. Problems of producing the requisite trained manpower have to be seen in their broader context. On the one hand, they bear closely on the character of education at each stage in school and college and on life in the home; on the other, they encompass the entire system of management and organisation in industrial and other undertakings, and the lines along which research is undertaken and its results applied. Advances in the field of science and technology and in specialised fields of training ultimately call for and are contingent on fundamental changes in the system of general education. There is, thus, at every step an intimate connection between general education and technical and other specialised forms of education. It is important to see the problems of education as a whole in all their interconnections, for, in the existing conditions in India, more than ever before, programmes of education lie at the base of the effort to forge the bonds of common citizenship, to harness the energies of the people and to develop the natural and human resources of every part of the country. Developments of the past decade have created a momentum for economic growth; yet, there are large deficiencies in the sphere of education which must be removed speedily if progress is to be sustained and enduring.



## I

## GENERAL EDUCATION

3. In the field of general education the main emphasis in the Third Plan will be on the provision of facilities for the education of all children in the age-group 6—11, expansion and improvement of the teaching of science at the secondary and university stages, development of vocational and technical education at all levels, expansion and improvement of facilities for the training of teachers for each stage of education, and increase in scholarships, freeships and other assistance. There will be special concentration on the education of girls and the existing disparities in levels of development in education between boys and girls will be substantially reduced. All elementary schools will be oriented to the basic pattern. Reorganisation of university education along the lines of the three-year degree course will be completed, and facilities for post-graduate and research work will be further expanded and improved.

4. Over the decade 1951—61, the number of students increased from 23·5 million to 43·5 million. The increase in the number of pupils in the age-group 6—11 was 79 per cent, in the age-group 11—14, 102 per cent and in the age-group 14—17, 139 per cent. The proportion of children in these groups attending school rose respectively from 43 to 61 per cent, 13 to 23 per cent and 5 to 12 per cent. In the course of the Third Plan, the total number of pupils at school is expected to increase by 20·4 million.

During the first two Plans, the number of schools increased by 73 per cent from 230,555 to 398,200, increase in the number of primary schools being 63 per cent, in middle schools 191 per cent, and in high schools 128 per cent. In the Third Plan the total number of schools will go up by about 24 per cent to about 494,500.

There has been a large increase in the number of students in universities and colleges, the total enrolment for arts, science and commerce courses being 360,000 in 1950-51, 634,000 in 1955-56 and about 900,000 in 1960-61. During the Second Plan, for the country as a whole, the proportion of students taking science courses increased from 33 per cent to about 36 per cent. In some States progress was specially marked, but there are others where there are still considerable lags. The Third Plan envisages that of the increase of 400,000 students at the university stage, about 60 per cent should be in respect of science classes, bringing the proportion of students taking science courses to over 42 per cent.

## OUTLAYS

5. The Table below shows the distribution of outlay on schemes of general education during the First, Second and Third Plans :

## Distribution of outlays on education

sub-head	amount (Rs. crores)			percentage		
	First Plan	Second Plan	Third Plan	First Plan	Second Plan	Third Plan
elementary education ..	85	87	209	63.9	41.9	50.0
secondary education ..	20	48	88	15.1	23.1	21.1
university education ..	14	45	82	10.5	21.6	19.6
other programmes :						
social education ..	14	4	6	10.5	1.9	1.4
physical education ..		10	12		4.8	2.9
and youth welfare ..		10	11		4.8	2.6
others .. ..	—					
total .. ..	133	204	408	100.0	98.1	97.6
cultural programmes ..	*	4	10	—	1.9	2.4
grand total .. ..	133	208	418	100.0	100.0	100.0

In addition to the provision under the head Education, resources to the extent of Rs. 37 crores are expected to be available under the community development programme and about Rs. 42 crores under the programmes for the welfare of backward classes, thus bringing the total provision for general education in the Third Five Year Plan to Rs. 497 crores as against Rs. 250 crores during the Second Plan. It is estimated that over the Third Plan period maintenance of educational institutions will involve a total expenditure of about Rs. 700 crores as against Rs. 375 crores in the Second Plan. The contribution from non-government sources towards the development of education would be in addition to the above outlays.

6. *Pre-school education.*—The Third Plan provides for setting up six training centres for bal sevikas, improvement of existing Balwadis, opening of new Balwadis, etc. In the programme for education Rs. 3 crores have been allotted for child welfare and allied schemes at the Centre and about Rs. 1 crore in the States in addition to other sources available under the community development and social welfare programmes.

\* The outlay on Cultural programmes in the First Plan was included under item 4.

## ELEMENTARY EDUCATION

7. *Primary education.*—One of the main aims of the Third Plan is to provide facilities for the education of all children in the age-group 6—11 to be followed by extension of education for the entire age-group 11—14 during the Fourth and Fifth Plans. The principal problems in providing facilities for the entire age-group 6—11 in the course of the Third Plan arise from the following factors :

- (a) difficulties of bringing girls to school in sufficient numbers;
- (b) extreme backwardness of certain areas and certain sections of the population in the matter of education; and
- (c) 'wastage' due to parents taking away children from schools as soon as they are able to add to the family income, so that more than half the children do not reach Class IV, thus failing to gain permanent literacy.

Special programmes like provision of quarters for women teachers, special allowances to women teachers working in rural areas, condensed educational courses for adult women so as to increase the supply of women teachers, stipends for women teacher trainees, attendance prizes and scholarships have been included with a view to providing greater facilities for the education of girls. Scattered habitations such as hilly tracts and far flung rural areas present certain obvious difficulties; in these it will be necessary to provide additional facilities, even though these will be relatively more expensive. Introduction of compulsion, appointment of trained and qualified teachers, improvements in methods of teaching, greater understanding on the part of parents of the desirability of letting their children remain at school, and the planning of school holidays, so that they coincide with the harvesting and sowing seasons, are among the steps to be taken to reduce the incidence of 'wastage'.

8. The programme for extending education to all children in the age-group 6—11 is of such crucial importance that financial considerations as such should not be allowed to come in the way of its successful execution in any State. There may, however, be other practical limitations which may be more difficult to overcome in a short period. Taking all factors into account, it is at present estimated that, by the end of the Third Plan, about 90 per cent of the boys and 62 per cent of the girls will be at school, the overall proportion for the age-group 6—11 being 76 per cent. In the course of the Third Plan, about 15·3 million additional children will come into schools, of whom 8·6 million are likely to be girls. Differences in levels of development between States will be narrowed to some extent, but they will still be quite considerable.

9. *Middle school education.*—During the decade 1951—61, the number of children at school in the age-group 11—14 doubled, while the number of girls increased nearly threefold. Nevertheless, at the end of the period, as compared to 34 per cent of the boys, only about 11 per cent of the girls were at school. The Third Plan envisages almost a doubling of girls at school as against the total increase for this age-group of about 54 per cent. The disparity between boys and girls will, however, remain a marked feature, for, against 40 per cent of the boys at school from this age-group, the proportion of girls is likely to be less than 17 per cent.

10. *Education for the age-group 6—14.*—For practical and administrative reasons, the programme of education for the age-group 6—14 visualised in the Constitution has been divided into two stages, 6—11 and 11—14. If the entire age-group 6—14 is considered together, over the past ten years, the proportion of the total population at school from this age-group has risen from 32 to 49 per cent. In the case of boys the proportion has risen from 46 to 65 per cent and in the case of girls from 18 to 31 per cent. At the end of the Third Plan, the proportion in the age-group will rise to about 60 per cent, the proportions for girls and boys respectively being 46 per cent and 73 per cent. These figures provide a measure of the task that remains to be carried out during the Fourth and Fifth Plans.

11. *Basic education.*—During the Third Plan it is proposed to convert about 57,760 schools into basic schools, orient existing schools to the basic pattern, remodel all training institutions along basic lines, establish basic schools in urban areas and link up basic education with the development activities of each local community.

12. *Training of teachers.*—At the end of the Second Plan elementary school teachers were being trained in 1307 institutions of which about 70 per cent were already organised on the basic pattern. By the end of the Third Plan the number of training institutions will increase to 1424 and all of these will impart training on basic lines, their enrolment rising from 135,000 in 1960-61 to about 200,000 in 1965-66. In a number of training schools extension departments will be established for improving the quality of teaching in schools in the neighbourhood.

13. *Community effort.*—Provisions made in the plans of States need to be supplemented by local community effort in programmes such as organisation of enrolment drives, provision of mid-day meals, etc. In several States encouraging results have been achieved in the mobilisation of local resources, and it is expected that local support will be forthcoming in even greater measure as Panchayati Raj institutions are established in different States.

Several States have provided in their plans for mid-day meals for children attending schools. Although the programmes at present are somewhat limited on account of financial considerations, it is suggested that State Governments should endeavour to provide for it, at any rate wherever local communities come forward to take the due share in it.

#### SECONDARY EDUCATION

14. Development of the economy and the large increase in the number of secondary schools and in the number of students in the age-group 14—17 enrolled in them have altered the character of the demands which secondary education is called upon to meet. Secondary schools have to be so reorganised that they provide a diversified educational service to pupils according to their needs. In the middle and lower grades of many branches of economic life, in administration, rural development, commerce, industry and the professions, the requirements of trained manpower have to be met after the necessary training by products of secondary schools. The programme for the reorganisation and improvement of secondary education, which has been implemented in recent years, is designed both to enlarge the content of secondary education and to make it a self-contained unit within the educational process. Among the measures envisaged are the conversion of high schools into higher secondary schools, development of multipurpose schools with provision of a number of elective subjects, expansion and improvement of facilities for the teaching of science, provision of educational and vocational guidance, improvement of the examination and evaluation system, enlargement of facilities for vocational education, increased facilities for the education of girls and the backward classes and encouragement to merit through scholarships. Reconstruction along these lines involves a major revision of the secondary school curriculum, introduction of new techniques and procedures and changes in the scheme of teacher education.

15. Over the past decade the number of children enrolled in classes IX to XI increased from about 1·2 to 2·9 million. At the end of the Third Plan the number will rise to about 4·6 million. Although the number of girls at school will be nearly doubled, their proportion in the age-group as a whole will remain low, being about 7 per cent as compared to about 24 per cent in the case of boys.

16. A few of the more important measures proposed in the Third Plan with a view to improving and strengthening the system of secondary education may be briefly mentioned. The number of higher secondary schools will increase from 3121 at the end of the Second Plan to 6390. In the programme for multipurpose schools, which provide a number of elective subjects in addition to the academic course, the main

aim will be to strengthen the 2115 schools which were set up by the end of the Second Plan, the programme of expansion being limited to 331 new schools. Four regional training colleges are to be established for preparing teachers for multipurpose schools. To provide guidance in multipurpose schools, it is proposed to strengthen the existing State bureaux of educational and vocational guidance. To improve science teaching, various measures are proposed to be taken, such as review of the existing science syllabi, preparation of teachers' handbooks, students' manuals and science textbooks, augmenting the supply of science teachers, training of laboratory assistants, standardisation of designs of science apparatus, etc. In addition to providing general science in all the secondary schools as a compulsory subject, more than 9500 out of 21,800 secondary schools will have science also as an elective subject. Programmes relating to examination reform will be carried further.

17. The number of training colleges will be increased from 236 in 1960-61 to 312 in 1965-66. Steps will also be taken to reorganise and strengthen the training programme in these institutions in order to align it with the current needs of secondary schools. To provide in-service training facilities for secondary school teachers, the number of extension centres which were established during the Second Plan at 54 selected training colleges will be increased.

### UNIVERSITY EDUCATION

18. With the expanding base at the elementary and secondary levels, the demand for higher education has greatly increased. The number of universities has increased from 27 in 1950-51 to 32 in 1955-56 and to 46 in 1960-61. About a dozen more universities are likely to be added during the Third Plan. The number of colleges, other than intermediate colleges, has risen during the Second Plan from 772 to 1050 and is expected to increase by 70 to 80 colleges each year during the Third Plan. The University Grants Commission has stressed that if deterioration is to be avoided, increase in the number of students at the university stage should be accompanied by corresponding expansion of physical and other teaching facilities.

19. In the Third Plan larger facilities are being provided for diverting students to vocational and technological education. However, the problem is one of large dimensions and, even after taking into account these facilities, the numbers of those seeking admission to higher education courses in arts, science and commerce will be large, and suitable criteria for selection will have to be adopted. In addition to the provision in the Plan for expansion of facilities for higher education, proposals for evening colleges, correspondence courses and the award of external degrees are being

considered. The programme for expanding facilities for science education during the Third Plan will involve larger provision of scientific equipment, appointment of more science teachers and grant of scholarships for meritorious science students. Universities and post-graduate departments of colleges will be assisted in the development of post-graduate studies and research, special emphasis being placed on science education. Schemes introduced in the Second Plan for increased facilities for women students, development of Rural Institutes and introduction of the three-year degree course will also be continued.

#### GIRLS' EDUCATION

20. Some aspects of the problem of girls' education at different stages have been touched upon earlier. There are a few broader aspects of the subject which should be mentioned. The census of 1961 has shown that as against a literacy rate of 34 per cent for men, only about 13 per cent of the women are literate. At the end of the Third Plan, the disparity between boys and girls, although somewhat reduced, will still be considerable. By far the most important objective in the field of education during the Third Plan, therefore, must be to expand the facilities for the education of girls at different stages of school education. Even to achieve the estimates suggested in the Third Plan, a massive effort will be needed throughout the country, and more specially in those States where the education of girls has seriously lagged behind.

21. It is estimated that of the resources available under the Plan for the development of education, about Rs. 175 crores will be devoted to the education of girls, of which about Rs. 114 crores are for education at the primary and middle school stages. Some provision has also been made for special schemes intended to support the general programme for girls' education. It is suggested that in implementing the various provisions made for girls' education in their plans, States should keep in view the detailed recommendations contained in the Report of the National Committee on Women's Education. Special emphasis must be laid on creating suitable conditions for encouraging parents to send their daughters to schools, educating public opinion, increasing the number of women from rural areas who will take up the vocation of teaching and inducing women from urban areas to accept posts of teachers in rural schools. It is proposed to evaluate carefully from year to year the progress made in implementing the programme for girls' education and to take such further measures as may be needed for realising the targets set for the Third Plan. In the field of girls' education, it is specially necessary to study closely such successful methods as may be evolved in different parts of the country and to make

such experience available generally. In drawing up annual plans also, care should be taken to see that the programme for girls' education is not held back for lack of financial resources and that the social and organisational limitations which impede progress at present are eliminated as early as possible.

#### SCHOLARSHIPS

22. In addition to Rs. 18 crores which will be spent annually to maintain the level of expenditure on scholarships reached in 1960-61, a sum of Rs. 37 crores will be available under the Third Plan for scholarships. Besides this, there will be research scholarships and fellowships provided by the University Grants Commission, and scholarships in fields such as agriculture, health, scientific research, etc.

In view of the importance attached to scholarships in the Third Plan, it is suggested that State Governments and the Central Ministries concerned should review their existing schemes with the object of ensuring that, subject to continued good performance, the rules under which the scholarships are given do, in fact, enable promising students in need of assistance to complete their education and that, ordinarily, help is not discontinued at intermediate stages. In the case of students drawn from the economically weaker sections, the aim should be to ensure adequate provision for the numbers forthcoming and also for assisting an increasing proportion to reach the higher stages in education. Categories where personnel are in short supply should be carefully identified in each State and an attempt made to select promising students at the post-matriculation stage and assist them with scholarships and stipends during the entire period of training. Such candidates should have before them the prospect of assured employment and should accept, on their part, the obligation to serve for prescribed periods at the end of their training.

#### SOCIAL EDUCATION AND ADULT LITERACY

23. Social education comprises literacy, health, recreation and home life of adults, training in citizenship and guidance in improving economic efficiency. In the last analysis, under democratic conditions, the success of planned development depends on the spread of social education and a progressive outlook and the growth of a sense of shared citizenship. Yet, the educational aims of agriculture, community development, health and other welfare programmes are among the most difficult to realise. Over the past decade, in several directions there has been a measure of progress, as in the development of community centres, reading rooms in villages, organised activities on the part of



youth and women, and the re-vitalisation of village panchayats and the cooperative movement. One aspect of social education, and in some ways the most important, has, however, caused concern. Between 1951 and 1961 the percentage of literacy has increased only from 17 to 24.

- 24. The introduction of Panchayati Raj at the district and block levels and the important role assigned to Village Panchayats render it imperative that in as short a period as possible a substantial proportion of the adult population should become capable of reading and writing. This is essential in their own interest as in that of the community as a whole. As sufficient progress has not been achieved so far in this direction, the problem is now being studied afresh with a view to working out means for the rapid expansion of adult literacy.

Any large-scale and effective programme for adult literacy must be based on the closest possible cooperation at every level of personnel engaged in education and community development. It will call for a pooling of the available resources in men and money, mobilisation of voluntary workers and organisations and development of adult education and literacy work at the block and village levels, and in every city and town, so that it takes the character more and more of a popular movement. Social education and adult literacy have to be developed as extension activities undertaken by educational institutions, specially village schools, in collaboration with panchayats and voluntary organisations. The broad aim should be that wherever a group of persons sufficient to constitute a class desires to attain literacy, the requisite facilities by way of teachers and teaching materials should be made readily available. Every educational institution should be involved in this effort, individual teachers participating in it being given suitable honoraria. At the same time, the Village Panchayats and other agencies should make their due contribution towards the effort. While Social Education Organisers, Block Education Officers and individual educational institutions must work closely together to place the facilities needed at the service of the local communities, it will be primarily for Panchayat Samitis, Village Panchayats and voluntary organisations to create and maintain popular enthusiasm and develop adult education and literacy on a continuing basis in a manner related organically to their own needs and conditions. At every step the local leadership, the teachers and the voluntary workers should be drawn into the movement for the expansion of literacy, both among men and among women. Proposals for a large programme of adult literacy on these lines are at present being worked out, and it is hoped that appreciable progress will be realised during the Third Plan.

## OTHER EDUCATIONAL PROGRAMMES

25. The Plan outlines a number of other educational programmes to be implemented during the next few years. These include improvement in the social and economic circumstances of teachers, research in educational problems, examination reform, production of textbooks and the development of Hindi and Sanskrit. The Plan also provides for physical education, development of sports and youth welfare activities and expansion of library services.

## CULTURAL PROGRAMMES

26. A number of important schemes for cultural development initiated during the First and Second Plans will be further expanded. These include the development of the Lalit Kala Akademi, the Sahitya Akademi and the Sangeet Natak Akademi, the National Museum and the National Gallery of Art, development of museums and schemes of the Department of Archaeology.

## NATIONAL INTEGRATION

27. Educational institutions have a vital role to play in bringing about national integration and social cohesion among the younger generation. The school programme should be designed to awaken in the pupils an awareness of national oneness. It has to be supplemented by other activities which will enable the students to gain first hand knowledge of the rich and composite culture of the country.

## II

## TECHNICAL EDUCATION

## MANPOWER PLANNING

Rapid economic development calls for the reorganisation and expansion of existing institutions, development of large numbers of new institutions, special measures for obtaining and training teachers and instructors, introduction of new techniques for intensifying training and shortening the periods needed, expanded facilities for imparting practical training and developing new ways of making use of trained personnel as a scarce key resource. In manpower planning the economy has to be viewed as a whole, the entire range of facilities and possibilities available in all undertakings, whether public or private, being deemed to be at the service of the community.

2. In each field personnel requirements have to be estimated carefully and over a long period. This calls for improved statistical information and development of techniques of manpower assessment. Estimates of personnel requirements have necessarily to be reviewed from

time to time in the light of changing needs and experience. In every sector and within each organisation, manpower planning must be an integral part of the economic plan.

3. With a view to providing a broad perspective of requirements of trained manpower for economic development in different fields, arranging for facilities for advanced training in manpower planning, and developing new methods, it is proposed shortly to set up an Institute of Applied Manpower Research.

4. In many fields, training programmes which form part of the Third Plan, are designed to produce trained workers for the still more intensive development envisaged in the Fourth and later Plans. There are large areas in which personnel with adequate experience will not be available in sufficient number. In these fields, while making the maximum use of the available indigenous personnel, there should be no hesitation in taking advantage of technical assistance programmes and other sources for obtaining such highly trained personnel as may be needed.

5. Requirements of personnel are commonly reckoned in terms of assumptions and possibilities based on past or current experience, and unforeseen demands will continue to be thrown up on account of the rapid technological changes within the country and abroad and the growing needs of the economy. The present estimates are, therefore, likely to need upward revision. It will be of particular importance during the Third Plan to re-assess the requirements in different fields from time to time and to take a view of these requirements, not merely for the Fourth Plan, but also for the Fifth Plan.

6. Requirements of engineers and technicians may be considered at three principal levels—graduates, diploma holders and skilled craftsmen. On present estimates, 51,000 additional engineering graduates are likely to be required for the Third Plan compared to about 29,000 in the Second Plan. The demand in the Fourth Plan is estimated at about 80,000. Additional requirements of diploma holders in engineering and technology in the Third Plan are estimated at about 100,000 compared to about 56,000 in the Second Plan. Estimates for the Fourth Plan are at present placed at about 125,000.

#### ENGINEERING, TECHNOLOGY AND SCIENCE

7. Programmes of technical education included in the Third Plan lay particular stress on increasing trained personnel in different fields at all levels, securing teachers in sufficient number, provision of scholarships and fellowships, introduction of part-time and correspondence courses, development of special courses in certain fields, the proper

utilisation of the available physical facilities, reduction of wastage and promotion of research. These programmes account for Rs. 142 crores or 25 per cent of the provision for schemes of education in the Third Plan as against 13 and 19 per cent respectively in the First and Second Plans. For the development of industrial training institutes, the National Apprenticeship Scheme, evening classes for industrial workers and the training of craft instructors, the Third Plan provides Rs. 49 crores.

8. The following Table summarises the progress achieved so far and programmes for the Third Plan :

Engineering colleges and polytechnics—intake and outturn

year		degree courses			diploma courses		
		number of institutions	admission capacity	outturn	number of institutions	admission capacity	outturn
1950-51	..	49	4120	2200	86	5900	2480
1955-56	..	65	5890	4020	114	10480	4500
1960-61	..	100	13860	5700	196	25570	8000
1965-66	..	117	19140	12000	263	37390	19000

The additional colleges to be set up in the Third Plan include 7 regional engineering colleges with an admission capacity of 250 students each. These will also provide for training in special branches of engineering such as mining, metallurgy, chemical engineering, etc., for which personnel in larger numbers will be required in the Fourth Plan. Provision has also been made for part-time and correspondence courses in engineering and technology.

9. Advances in science and technology emphasise the need for the study in technological institutions of basic sciences, such as mathematics, physics, chemistry, etc. This consideration has been stressed in various leading institutions imparting technical education. Facilities for post-graduate studies and research in engineering and technology are being enlarged. Additional facilities for special courses will be provided in printing, management studies, industrial engineering, commerce, and forge and foundry engineering. Two All-India Institutes of Management and a National Institute for Training in Industrial Engineering will also be set up. Other schemes for which the Third Plan provides are the introduction of the five-year integrated degree course, increased hostel facilities, strengthening of Boards of Technical Education in the States, development of Art education, expansion of facilities for practical training and establishment of junior technical schools and technical institutions for girls and women.

10. The Third Plan provides for merit and loan scholarships to students in technical institutions, and it is expected that over 18 per cent of the students will be given financial assistance in the Third Plan as against 5 per cent at the end of the Second Plan. In the Institutes of Technology and regional colleges scholarships are provided for 25 per cent of the students.

11. There is at present acute shortage of teaching personnel in engineering colleges and polytechnics. A series of measures are envisaged for reducing this deficit, such as teachers' training programmes, both within the country and abroad, improvement of salary scales and of general service conditions, advance recruitment of teachers and creation of supernumerary posts on the teaching staffs and expansion of post-graduate training facilities. Schemes along these lines were initiated in the Second Plan and will now be further expanded.

12. Industrial development not only calls for considerable increase in the numbers of skilled workers or craftsmen, but also for a steady rise in the quality of their workmanship. In various countries, therefore, the trend has been to raise the level of general education and the minimum qualifications required for entrance to a trade school. During the Third Plan about 1·3 million craftsmen will be required, about 810,000 in engineering trades and the balance in non-engineering trades. Craftsmen or skilled workers and operatives are trained at present in several types of institutions and in different ways. Training facilities in industrial training institutes will be expanded so as to increase the number of institutes from 167 to 318 and the admission capacity from 42,000 to 100,000. In addition, under the National Apprenticeship Scheme arrangements for training about 12,000 persons are proposed to be made. Facilities for evening classes are to be expanded from about 2000 to over 11,000 seats. A number of Central Ministries and Departments like Railways, Defence, Posts and Telegraphs have special training programmes. All State undertakings and a growing number of private industries have training programmes for meeting their own requirements. Training programmes are also organised by the All-India Boards dealing with village and small industries, Small Industries Service Institutes and Departments of Industries in the States.

13. For the training of craft instructors, the existing four Central Training Institutes for instructors, including one for women instructors, will be fully developed and three new institutes will be set up. The outturn of these Institutes during the Third Plan is estimated at about 7800 and there will be provision for 1800 seats for training instructors in different trades.

14. The national register for scientific and technical personnel maintained by the Council of Scientific and Industrial Research carries about

106,000 registrations. Of the number registered 66,000 are engineers and technologists. The "scientists' pool" provides for highly qualified scientists and others, especially those returning to India from foreign countries, and has so far assisted the selection of 653 scientists and technologists. The numbers of scientific personnel have increased in the Second Plan from 23,300 to 37,500. Facilities for science education at the secondary and university stages will be considerably expanded during the Third Plan. At the University stage facilities will be provided for additional enrolment of 230,000 against a total of about 400,000 and out of 27,000 teachers required for colleges in the Third Plan, as many as 17,000 will be scientists.

#### OTHER PERSONNEL REQUIREMENTS

15. Personnel requirements have been estimated for the Third Plan, and, wherever possible, for the Fourth, in respect of various fields of development, notably, agriculture and rural development, education, health and social welfare, administration and statistics. In sectors such as agriculture and health, to a large extent, the necessary training facilities were developed during the Second Plan, so that the demands at present anticipated might be met with only small increases in the existing facilities. However, the possibility of these demands increasing as the Plan proceeds has to be kept in view. Estimates relating to certain categories of personnel may be briefly mentioned.

16. The estimated additional requirements of agricultural and allied personnel in the Third and the Fourth Plans are set out in the following Table :

Estimated additional requirements of agricultural and allied personnel

	numbers in position in 1960-61	Third Plan additional requirements	Fourth Plan additional requirements
agricultural graduates	14000	20000	30000
veterinary graduates	5000	6800	7000
dairy technologists: degree	520	625	1150
diploma	308	975	1150
forestry			
forest officers	1100	480	600
rangers	3000	1520	1900
fisheries			
administrative and statistical personnel	460	1475	•2410
fishery engineers	150	240	
fishing boat personnel	120	250	
technical shore personnel	50	170	

The additional training facilities proposed in the Third Plan are given in the Table below :

Additional training facilities in the Third Plan						
	1960-61			1965-66		
	institutions	intake	outturn	institutions	intake	outturn
agricultural colleges	53	4600	2300	57	6200	4500
veterinary colleges	17	1300	1200	19	1460	1350
diary technological institutions	5	110	100	7	170	154
fisheries institutes	2	50	50	3	80	75

Training programmes have also been formulated for personnel required in community development blocks and for the development of cooperation.

17. The programme for education in the Third Plan involves an increase of about 61 per cent in the number of trained teachers in primary schools, about 81 per cent in middle schools and about 40 per cent in secondary schools. At the end of the Third Plan the proportion of trained teachers in each of these categories will rise only to about 75 per cent. Facilities for formal training will, therefore, need to be supplemented by refresher courses and in-service training.

18. For carrying out the Third Plan programmes under Health, shortages are anticipated in certain categories. The following Table sets out proposals for increase in training facilities during the Third Plan along with the position existing at the end of the Second Plan :

Additional training facilities for health and medical personnel						
	1960-61			1965-66		
	institutions	intake	outturn	institutions	intake	outturn
doctors	57	5800	3200	75	8000	4830
nurses	250	4000	2800	350	6200	4500
auxiliary nurse-						
midwives/mid-						
wives	420	5200	4000	550	9100	7000
health visitors	30	650	375	50	850	500
sanitary inspectors	28	2250	2250	38	2850	2850
pharmacists	10	550	480	15	1450	1270

19. The Third Plan provides for the expansion of the Indian Administrative Services and of State Administrative Services.

20. Over the period of the Second Plan, the number of persons with statistical training and background employed with the Central and State Governments has increased from 4000 to 10,000. The additional requirements for the Plan are estimated at about 6000. There will also be increased requirements in private industry and commerce. Training facilities provided by the Indian Statistical Institute, the Central Statistical Organisation and the State Statistical Bureaux, the universities and other institutions are being expanded.

21. Technical assistance schemes under the United Nations, the Colombo Plan and agreements with individual countries and foreign universities and Foundations have provided valuable opportunities for training over a large range of specialised and advanced fields of study. To the extent possible, India has also endeavoured to share its training facilities with other countries. To derive the maximum benefit from the various technical assistance programmes, the gaps which are at present anticipated should be precisely identified and the selection of trainees and the scope of the training to be provided should be determined on the basis of careful study of requirements over the period of the Third Plan and the Fourth Plan. In augmenting training facilities and building up cadres of trained workers in the country, due account should also be taken of the demands from other countries which India may be called upon to meet in different fields in the coming years.



## CHAPTER 18

### NATURAL RESOURCES AND SCIENTIFIC RESEARCH

#### SURVEYS OF NATURAL RESOURCES

THE country's natural resources have to be looked at in a co-ordinated manner and their investigation and utilisation planned for long-term needs. Over the past few years, various organisations dealing with the survey and utilisation of natural resources have been greatly expanded and have undertaken a series of new surveys and investigations. These surveys have resulted in a fuller assessment of the country's natural resources. With the formulation of the Third Five Year Plan, the stage has reached when, as a necessary condition of well-conceived long-term plans, a comprehensive view has to be taken of the extent and quality of the information available in respect of the main natural resources. The principal gaps which exist, the surveys required and the further steps needed in relation to specific long-range objectives in land use, forest development and irrigation and in the development of power, steel, coal, oil and minerals have to be identified.

2. India's natural resources give her a large potential for agricultural and industrial production, and their rapid development is an essential condition for the achievement, over the next two or three plan periods, of a self-reliant and self-sustained economy. The long-term goals in national and per capita incomes and the development of agriculture and industry and other branches of economic life can only be achieved in time if the nature and extent of the natural resources of the country and the essential requirements concerning their development are assessed and the necessary steps taken well in advance. For balanced development, it is equally necessary to assess availabilities, requirements and possibilities in relation to each of the principal regions within the country.

3. To set the problem of assessing and developing natural resources in the context of future development, the Plan reviews the major developments of recent years briefly and indicates the problems that lie ahead in relation to the development of land, water, mineral, energy and other resources. The Planning Commission has recently constituted a special unit for studying problems relating to the assessment and development of natural resources and assisting the various agencies engaged in their survey and investigation in linking up their work closely with the requirements of the rapidly growing economy and,

generally, helping in securing a common approach in various related fields. In collaboration with other organisations it is hoped to arrange for co-ordinated studies of natural resources on a continuing basis, to specify gaps in the existing information, specially from the aspect of long-term development, and to suggest suitable policies and measures for giving effect to them.

4. The preparation of a long-term plan of economic development, stretching over the next fifteen years and more, to which reference has been made earlier, will help interpret the results of scientific research and the greater knowledge now being gained of the country's resources. The task to be undertaken is one of considerable magnitude and will call for continuous cooperation between the Planning Commission, the various research organisations of the Central Government, Departments in the States, leading institutions engaged in scientific and economic research and the universities. The potential for the development of India's natural resources is vast; with systematic study and exploration of these resources and the increasing application of science and technology in their assessment and utilisation, the possibilities of economic growth may be enlarged far beyond the present anticipations.

#### OBJECTIVES OF SCIENTIFIC RESEARCH

5. Development of natural resources is intimately connected with progress in scientific and technological research. Since the second world war, the pace of scientific and technological research in advanced countries has greatly increased. One of the results has been to widen the gap between the advanced and the less advanced countries. The task before India is to cover this distance by putting in the utmost effort in the development of scientific and technological research and in the application of science in the furtherance of her development programmes.

6. Investment in scientific research makes a large and enduring contribution to the prosperity of the country. Successive Five Year Plans have, therefore, made steadily increasing allotments for scientific research. These need to be supported more fully than in the past by contributions from industry. The cultivation of science and scientific research in all its aspects, pure, applied and educational, is among the major aims accepted by the Government of India in its Scientific Policy Resolution of March, 1958. During the First Plan attention was chiefly given to the building up of national laboratories and other research institutions. In the Second Plan the available facilities were developed further, research was made more broad-based and research facilities in universities and different other research centres were extended.

7. As a result of developments over the first two Plans an extensive network of institutions engaged in scientific research has come into existence, and pure research, applied research and research in specialised fields are now being undertaken at a large number of centres. In the Third Plan the programme of scientific and technological research will be devoted specially to—

- (i) strengthening the existing research institutions and expanding facilities for research over a wide field;
- (ii) encouraging basic research in universities;
- (iii) encouraging, in particular, research in engineering and technology;
- (iv) training of research personnel and expanding the programme of research fellowships and scholarships;
- (v) carrying out research in the development and manufacture of scientific and industrial instruments;
- (vi) coordination of research work carried out in national laboratories, universities, technical institutions, laboratories of scientific associations and research wings of Government Departments; and
- (vii) utilising results of research after establishing their validity through pilot plant production, full scale field experiments, etc.

8. The Third Plan programmes at the Centre for scientific and technological research entail a total outlay of Rs. 130 crores compared to Rs. 72 crores in the Second Plan. The distribution of these outlays is as follows :

	Second Plan estimated expenditure	(Rs. crores) Third Plan
Council of Scientific and Industrial Research (C.S.I.R.) (including large-scale field experiments) and Ministry of Scientific Research and Cultural Affairs	20.00	35.00
Department of Atomic Energy	27.00	35.00
agricultural research	13.80	26.40
medical research	2.20	3.50
research under other Central Ministries (other than Defence)	9.00	30.10
total :	72.00	130.00

The Third Plan outlays are in addition to expenditure amounting to Rs. 75 crores over the five-year period on the continuance of facilities established up to the end of the Second Plan.

9. The Plan reviews at some length the progress of scientific and technological research over the first two Plan periods and the programmes formulated for the Third Plan, under the following heads :

- (i) Council of Scientific and Industrial Research,
- (ii) Ministry of Scientific Research,
- (iii) Department of Atomic Energy,
- (iv) research in agriculture and allied fields,
- (v) medical research,
- (vi) other programmes of research :
  - (a) irrigation and power,
  - (b) transport and construction,
  - (c) minerals,
  - (d) communication,
- (vii) sugar, jute and other industries,
- (viii) research in universities and institutes of higher technology (including engineering research and statistics),
- (ix) utilisation of scientific research,
- (x) scientific instruments, and
- (xi) standardisation, quality control and productivity.

#### UTILISATION OF SCIENTIFIC RESEARCH

10. The importance of ensuring speedy and extensive utilisation on a commercial scale of the results of scientific research has been stressed for several years. The National Research Development Corporation was set up with the object of exploiting the results of laboratory research for commercial production. However, a large proportion of the inventions made in the country still remain to be exploited. Intervals between the time when the results of laboratory research become available and their wider application are at present considerable, and there is need for more effective action. The factors which have hindered rapid utilisation of the results of research appear to be lack of pilot plant facilities and of design and fabrication facilities, inadequate liaison between industry and research organisations, insufficient attention on the part of industry to the urgent need to secure indigenous production to replace imported articles, and inadequate coordination between licensing policies and programmes for the development of research. Facilities for design and fabrication of pilot plants are now available in much larger measure than before, and such deficiencies as exist will be made up to a considerable extent during the Third Plan. The other aspects mentioned above call for a new

approach. It is crucial that there should be a close association between research workers and individual industries, fuller knowledge and greater understanding on their part, both of the problems requiring solution and of the results obtained, and adoption by such industries of carefully considered schemes for the utilisation, of the results of research, replacement of imported items by indigenous manufactures and achievement of higher standards based on research undertaken within the country. In particular, Development Councils and other organisations concerned with different industries should regard such schemes as an essential part of their programmes of development during the Third Plan. They should ensure that research workers receive the necessary assistance and facilities from industrial plants and from executives and engineers in different industries.

11. The same lags in the utilisation of the results of research which appear in industry are also found in other fields of development such as transport, construction and power. For lack of extended application, full value is not realised from expenditures incurred on research, thereby slowing down the process of technical advance and modernisation. In the road development programme of the Central Government it has been decided to make a special provision to cover possible risks and to meet additional expenditures involved in giving extended trials to new techniques of road construction. This approach can also be applied in other fields of construction and in public utilities.

12. The technological progress of a country is marked by large numbers of inventions, some of major significance and based on prolonged research in the laboratories, others in the nature of improvisations and solutions discovered in the course of everyday work by skilled workers and technicians. For the process of industrialisation to strike roots of its own, it is essential that in all fields an effort should be made to stimulate the creative faculties of scientists, technicians and others. It is suggested that State undertakings as well as enterprises in the private sector and various agencies of the Central and the State Governments should formulate their own schemes for encouraging inventions on the part of workers and technicians and should give them the necessary support in working out and developing their ideas.

#### SCIENTIFIC INSTRUMENTS

13. Dependence on other countries for the supply of scientific instruments has been an important obstacle in the development of scientific research and in the extension and improvement of facilities for the teaching of science in schools and colleges. Following the report of the Scientific Instruments Committee, in October, 1959, the Council

of Scientific and Industrial Research constituted a Central Scientific Instruments Organisation. To enable existing and potential manufacturers to arrange for production on a long-term basis, it is essential that Government departments and educational institutions should plan their requirements well ahead and make these known to manufacturers, and, to the extent possible, should place firm orders in advance. The purchase organisations of the Central and State Governments and various indenting authorities should collaborate in the improvement of prevailing procedures in relation to the development of the scientific instruments industry.

#### STANDARDISATION, QUALITY CONTROL AND PRODUCTIVITY

14. The Plan reviews the progress made in the implementation of the decision to introduce metric weights and measures. It is noted that in the course of the next three years the metric system will replace all other systems to a substantial extent and that after December, 1966, the metric system will be the only system recognised by law.

15. The Plan reviews the steps taken towards the establishment of Indian standards, the progress made in stimulating work on productivity and in introducing quality control. It is proposed that quality marking schemes should be extended during the Third Plan to new fields. In particular, pre-shipment inspection and other methods of ensuring the quality of export products should be adopted systematically in all fields and, if need be, efforts in this direction should be supported by legislation.

## CHAPTER 19

### HEALTH, HOUSING AND OTHER WELFARE SERVICES

THIS Chapter outlines the main policies and programmes in the Third Five Year Plan under Health and Family Planning, Housing and Urban and Rural Planning, Development of Backward Classes, Social Welfare, Prohibition and Rehabilitation of Displaced Persons. Programmes in these fields of development approved for the Third Plan entail a total cost of Rs. 736 crores as compared to about Rs. 474 crores in the Second Plan. In each field the policies and priorities recommended for the Third Plan are based on an evaluation of the working of different programmes during the first two Plans, and a fresh assessment of the social situation.

#### HEALTH AND FAMILY PLANNING

2. The broad objective of the health programmes in the Third Plan is to expand health services and to bring about progressive improvement in the health of the people. Increased emphasis will be laid on preventive public health services. As in the Second Plan, specific programmes have been formulated in the Third Plan for improvement of environmental sanitation, specially rural and urban water supply, control of communicable diseases, organisation of institutional facilities for providing health services and for the training of medical and health personnel, and provision of services such as maternal and child welfare health education and nutrition. The Third Plan also accords very high priority to family planning.

As against outlays of Rs. 140 crores and Rs. 225 crores in the First and Second Plans respectively, programmes in the Third Plan involve a total outlay of about Rs. 342 crores.

3. During the past ten years, notable advances have been made in several directions. Measures adopted for the control and eradication of malaria have resulted in marked decline in the incidence of the disease. Appreciable progress has also been made in controlling other communicable diseases like filaria, tuberculosis, leprosy and venereal diseases. Health services and training facilities have been developed on a considerable scale. About 664 schemes of urban water supply and drainage have been completed or are in progress. Rural water supply schemes have been carried out throughout the country.

Statistics concerning birth and death rates are subject to serious limitations. Nevertheless, as the Table below indicates, there has been steady improvement in the health of the population :

Birth rates, death rates and expectation of life—1941-61

period	birth rate	death rate	infant mortality rate		expectation of life at birth	
			male	female	male	female
1941—51	39.9	27.4	190.0	175.0	32.45	31.66
1951—56	41.7	25.9	161.4	146.7	37.76	37.49
1956—61	40.7	21.6	142.3	127.9	41.68	42.06

4. Despite improvements, at the end of the Second Plan in certain directions there were obvious deficiencies. In relation to needs the institutional facilities are quite inadequate, specially in the rural areas. Doctors are not evenly distributed between urban and rural areas, and in the latter shortages of personnel are common. Shortages of personnel have also hampered progress in dealing with communicable diseases. Although there has been progress in rural water supply, over large rural tracts, facilities for safe drinking water are still lacking. In many urban areas, problems of drainage have been accentuated on account of the rapid growth of population. The Third Plan aims at removing these various shortages and deficiencies. One of its major objectives is that, to as large an extent as possible, supply of good drinking water should become available in most villages in the country by the end of the Plan period. The programme for the eradication of malaria will be completed and efforts will be made to eradicate small-pox and to control filaria, cholera, tuberculosis, leprosy and other communicable diseases.

5. The principal physical targets proposed for the Third Plan, along with statistics of progress in the First and Second Plans, are given in summary form in the Table below:

Achievements and targets 1951-66

categories/unit	1950-51	1955-56	1960-61	1965-66
hospitals and dispensaries				
institutions	8600	10000	12600	14600
beds	113000	125000	185600	240100
primary health units	..	725	2800	5000
medical education				
medical colleges	30	42	57	75
annual admissions	2500	3500	5800	8000
dental education				
dental colleges	4	7	10	14
annual admissions	150	231	281	400



categories/unit	1950-51	1955-56	1960-61	1965-66
training programmes				
doctors* . . . . .	56000	65000	70000	81000
nurses* . . . . .	15000	18500	27000	45000
auxiliary nurse-midwives and midwives* . . . . .	8000	12780	19900	48500
health visitors* . . . . .	521	800	1500	3500
nurse-dais/dais* . . . . .	1800	6400	11500	40000
sanitary inspectors* . . . . .	3500	4000	6000	19200
pharmacists . . . . .	N.A.	N.A.	42000	48000
control of communicable diseases				
malaria : units . . . . .	—	133	390	390**
population covered (millions) . . . . .	—	107	438	497
filaria : units . . . . .	—	11	48	48
population covered . . . . .	—	15.1	24.6	N.A.
tuberculosis :				
B.C.G. teams . . . . .	15	119	167	167
T.B. clinics . . . . .	110	160	220	420
T.B. demonstration and training centres . . . . .	—	3	10	15
beds . . . . .	10371	22000	26500	30000
leprosy : subsidiary centres . . . . .	—	33	135	235
venereal diseases—clinics . . . . .	—	—	83	189
maternity and child health centres	1651	1856	4500	10000

6. *Water supply and environmental sanitation.*—The Third Plan provides about Rs. 67 crores for rural water supply—Rs. 35 crores under the Village Water Supply Programme and the balance under Health, Community Development and the Welfare of Backward Classes. The Village Water Supply Programme is intended primarily to deal with the problems of rural water supply at the village level and is to be undertaken in the blocks through Panchayat Samitis and Village Panchayats. To achieve the objective of making the supply of good drinking water available in most villages, it will be necessary not only to make an intensive effort but also to ensure that at every stage these are jointly prepared and effectively coordinated programmes between all the agencies concerned and local initiative and contribution are mobilised to the utmost. Surveys to ascertain the present position of rural water supply are being undertaken in several States.

7. Along with rural water supply much greater attention should now be given to the programme of rural sanitation, specially to the sanitary disposal of excreta in the villages. The broad lines of an action programme regarding the introduction and use of village latrines are now fairly established. It is important that in each development block an effort should be made to create greater awareness of rural sanitation

\*Number indicates the number in practice or in service.

N.A.—Not available.

\*\*The units will be withdrawn gradually in the latter part of the Third Plan.

problems and to introduce the use of sanitary latrines in schools and camps, for groups of houses and, where possible, in individual houses. Health education is a most important aspect of the programme of rural sanitation. The advantages and convenience of clean, odourless and cheap latrines are obvious. They are no less essential for conserving the fertiliser value of human wastes and enriching the soil.

8. *Urban water supply and sanitation.*—The Plan provides Rs. 89 crores for urban water supply and drainage schemes. It is important that schemes of drainage and sewerage are considered simultaneously with those for water supply and are carried out under a coordinated programme. In cities whose population exceeds 100,000, it will be desirable to set apart for sewerage schemes, say, 20 to 30 per cent of the estimated cost of water supply projects. Experience of urban water supply schemes during the Second Plan has emphasised the need for careful phasing and for ensuring that different parts of a project are in the correct sequence with one another. It is necessary to avoid dispersing the available resources too thinly over a large number of schemes. Urban water supply schemes should be selected on the basis of suitable criteria. Municipal bodies should not only accept responsibility for maintenance but should also try to contribute towards the cost of construction to the extent possible. Coordination between the engineering and the health aspects of water supply schemes should receive greater attention.

9. *Primary health units, hospitals and dispensaries.*—The Third Plan envisages the provision of 2000 more hospitals and dispensaries and 54,000 additional beds and, along with extension in the coverage of the community development programme, primary health units will be established in all development blocks. For dealing with the problem of securing medical personnel for rural areas, the following measures are proposed:

- (i) As is the practice in some States, there should be a single cadre for personnel working in rural as well as urban areas. Service rules may stipulate that each incumbent in the cadre has to put in a certain period of service in rural areas before he can cross the first efficiency bar or gain the next grade. Periods of service in rural areas should be taken into consideration for accelerated promotion, advance increments or selection for post-graduate training.
- (ii) Residential accommodation and other facilities should be provided for medical personnel serving in rural areas. Due account should be taken of their additional expenditure, as for instance, on account of the education of children.

- (iii) Scholarships should be made available in sufficient number to students undergoing training with the obligation that they will serve in rural areas after graduation for a minimum prescribed period.
- (iv) The services of medical practitioners both in urban and rural areas should be utilised on a part-time basis in hospitals and dispensaries and for the school health service.
- (v) The services of qualified and properly trained graduates in indigenous systems of medicine should be utilised in primary health units and sub-centres.

It is also suggested that a new short-term course for the training of medical assistants should be instituted. The trainees should work in primary health units in the rural areas for periods of 3 to 5 years after which they should be given special facilities to obtain the normal medical qualifications and continue in the public service.

To raise the standard of primary health units, it is proposed to link them up with referral and district hospitals.

10. *Control of communicable diseases.*—Programmes in the Third Plan for the control of communicable diseases entail a total outlay of about Rs. 70 crores.

At the end of the Second Plan 390 malaria eradication units were in position. Surveillance operations have been introduced simultaneously and, as the Third Plan progresses, the units will be gradually withdrawn.

In dealing with filariasis, during the Third Plan, priority will be given to drainage schemes in towns affected by this disease.

Small-pox is endemic in India and is a source for the spread of infection to other countries. As it is a preventible disease and vaccination is a potent weapon for eradicating it, it is proposed that during the Third Plan efforts should be made to eradicate the disease.

A series of measures are already in hand for combating tuberculosis. In the course of the Third Plan about 100 million persons are expected to be tested under the B.C.G. campaign. The number of tuberculosis clinics will be increased from 220 to 420 and 25 mobile clinics will also be set up for service in rural areas. About 3500 more beds will be added, bringing the total number of beds to 30,000.

The programme for the control of leprosy includes the establishment of 100 more control units and the establishment of survey, education and treatment centres.

Programmes relating to the elimination of goitre, research in cancer, and diagnosis and treatment of venereal diseases are also being undertaken.\*

11. *Cholera*.—India has been an endemic area for cholera. There are five endemic foci in the deltaic regions of the principal rivers in the States of West Bengal, Orissa, Andhra Pradesh and Madras, of which West Bengal and Orissa are the most serious. To prevent frequent occurrence of cholera epidemics, these endemic foci have to be eliminated. This object can only be achieved by providing adequate supply of safe water for the population, particularly in the endemic areas, and by the adoption of modern methods of sewage disposal. By far the largest endemic centre in India is Greater Calcutta. It is suggested that in the States affected by cholera a large part of the water supply and sanitation programme should be concentrated in the endemic pockets. Specific programmes for these areas should be drawn up speedily and, if necessary, an effort should be made to supplement resources available under the Plan. There is no reason why it should not be possible to reduce the incidence of cholera significantly during the Third Plan and to eliminate it wholly by the end of the Fourth Plan.

12. *Other aspects of the health programme*.—Some aspects of the health programme which will call for considerable attention during the Third Plan are briefly mentioned in the following paragraphs.

13. *Health education*.—In its widest sense health education is the very foundation of a successful public health programme. A great deal of ill health is the result of ignorance of simple rules of hygiene or of indifference to their practical application, and no single measure is likely to give a greater return in proportion to the outlay than health education. It is suggested that health education should be undertaken as a national programme and far greater stress should be placed upon it in the work of social education in community development blocks.

14. *School health*.—Care of the health of school children is not only vital in itself, but is a most important aspect of the health of the community as a whole. Health programmes in the States should ensure certain minimum services for the care of health in the schools. The programme of school mid-day meals should be extended progressively as local communities come forward to contribute towards it. In due course the movement for mid-day meals should cover the bulk of the school population, specially in the lower age groups. •

15. *Vital statistics*.—Deficiencies in vital statistics are among the most serious weaknesses of the existing statistical system. Proposals for

improving vital statistics have been recently worked out at an inter-State conference. These include a recommendation for enactment of Central legislation for vital statistics, a scheme of sample registration of areas with a view to obtaining reliable estimates of birth and death rates for different States and regions, and suggestions for administrative and other arrangements for urban and rural areas, flow of returns and compilation of statistics. The programme for the improvement of vital statistics should be implemented as speedily as possible with such further support from the Centre as might be found necessary.

16. *Mental health*.—In view of the growing importance of mental health services in programmes for the development of health services there is need for mental health orientation of medical specialists, public health personnel and social workers, specially those working in maternity and child health centres.

17. *Drugs*.—It is proposed that State Governments should augment their personnel for the day to day administration of the Drugs Act and should provide for the establishment of their own laboratories for analysis of samples.

18. *Food adulteration*.—Adulteration in articles of common consumption is tending to increase. Adulteration occurs at the point of production, in the stage of processing and in the course of distribution, both wholesale and retail. It is essential that for each commodity the problem should be followed up systematically for each of the earlier stages and all the parties concerned should be brought within the scope of legal and administrative action. In addition to vigilance by local bodies, voluntary organisations and consumer associations, cooperative consumer stores should be built up, specially in the towns, as a means of assuring the supply of pure foodstuffs.

19. *Indigenous systems of medicine*.—The present approach to education in Ayurveda has not produced satisfactory results. The course of "integrated" medicine has not served the avowed object of producing practitioners of Ayurveda. There is lack of uniformity in different States in the matter of qualifications prescribed for admission, curricula, training, etc. The Planning Commission's Panel on Ayurveda has made a number of recommendations for promoting the Ayurvedic system of medicine. Research in Ayurveda needs to be intensified.

20. *Nutrition*.—Diet surveys undertaken at the instance of the Indian Council of Medical Research over two periods, 1935—48 and 1955—58, show that while there has been no appreciable change in the consumption of cereals and pulses, there may well have been a small reduction

in the consumption per capita of some of the non-cereal foods. Food deficiencies bear most harshly on growing children among the poorer sections of the population. The programme for improving nutrition falls broadly under two heads, namely, education of the public and of various groups of workers in nutrition, and measures to meet the nutritional requirements of vulnerable groups within the community. Among the vulnerable groups, those requiring the greatest attention are expectant and nursing mothers, infants, pre-school children and school children, specially in the lower age groups. School children are best catered for through the mid-day meal programme. For under-nourished children the provision of protective foods like milk and additions to the diet through multipurpose food, vitamins, etc., are essential. Greater attention should also be given to the provision of cheap and balanced meals in canteens in industrial undertakings, hostels and in restaurants and eating places for the general public. At the Centre there is already a National Nutrition Advisory Committee. The establishment of special sections for nutrition in the Public Health Departments in the States merits early consideration.

#### FAMILY PLANNING

21. The greatest stress has to be laid in the Third and subsequent Five Year Plans on the programme for family planning. This will involve intensive education, provision of facilities and advice on the largest scale possible and widespread popular effort in every rural and urban community. In the circumstances of the country, family planning has to be undertaken, not merely as a major development programme, but as a nationwide movement which embodies a basic attitude towards a better life for the individual, the family and the community.

22. During the First Plan, 126 family planning clinics were set up in urban areas and 21 in rural areas. In the Second Plan, the number of clinics increased to 549 in urban areas and to 1100 in rural areas. In addition to these clinics, family planning services are provided at 1864 rural and 330 urban medical and health centres. A number of sterilisation centres have also been established. The programme is guided by the Central and State Family Planning Boards. A considerable amount of research work is in progress at the Contraceptives Testing Unit at Bombay and elsewhere. Four demographic research centres have been set up. A number of valuable field investigations have been carried out. A broad-based training programme has been developed.

23. The programme for family planning in the Third Plan provides for (a) education and motivation for family planning, (b) provision of

services, (c) training, (d) supplies, (e) communication and motivation research, (f) demographic research, and (g) medical and biological research. The programme, as approved, involves a total outlay of Rs. 50 crores.

Intensification of the educational programme is crucial to the success of the entire movement. Family planning education, being part of education for a better life, has to be interwoven with other constructive activities. According to the tentative programmes drawn up for the Third Plan, the number of family planning clinics is likely to increase from about 1800 at the end of the Second Plan to about 8200. Of the latter, about 6100 clinics may be in rural areas and 2100 in urban areas.

24. An expanded programme of research is to be undertaken in the Third Plan. Amongst others, the following aspects are being investigated:

- (i) development of studies of human genetics,
- (ii) studies in the physiology of reproduction,
- (iii) development of more effective local contraceptives,
- (iv) development of a suitable oral contraceptive, and
- (v) follow-up of sterilisation cases, both male and female, to investigate possible after-effects in such cases.

An expert committee on oral contraceptives has been appointed to review periodically the developments in this field and to make recommendations. A committee to guide communication, motivation, action-research in family planning has also been recently set up. Studies of the sociological problems involved in family planning need to be developed on more comprehensive lines than has been hitherto attempted.

25. Within the programme of family planning, sterilisation undertaken on the basis of voluntary choice has a valuable contribution to make. It is visualised that during the Third Plan facilities for sterilisation will be extended to district hospitals and sub-divisional hospitals.

26. The main task in the field of family planning in the Third Plan is to find effective solutions to certain basic problems and to mobilise all the available agencies for educational and extension work in support of family planning. Administrative arrangements at the Centre and in the States will need to be greatly strengthened. To equip thousands of primary health centres and in due course their sub-centres as well, with personnel and supplies, and to be able to reach out to the villages, not merely with advice but more positively with the means to practise family planning, are tasks whose magnitude and complexity should not

be under-estimated. To utilise such diverse agencies as private medical practitioners, indigenous doctors and village dais for family planning work along with the family planning clinics and the primary health centres will call for much careful organisation at the local level. The development of the production of contraceptives on the scale needed is another major undertaking. It is essential that the help of voluntary organisations, labour organisations and other associations in various branches of national life should be sought on as large a scale as possible and integrated into the practical programmes of work adopted in each area.

Finally, it should be added that besides the provision of facilities which are undoubtedly needed in any large-scale effort to limit families, there should be the greatest emphasis on moral and psychological elements, on restraint and on such social policies as education of women, opening up of new employment opportunities for them and raising of the age of marriage. In addition to advice on birth control, the family planning programme should include sex and family life education and advice on such other measures as may be necessary to promote the welfare of the family.

## II

### HOUSING AND RURAL AND URBAN DEVELOPMENT

The growth of population, and especially the urban population, has three broad implications for housing programmes in the Third and subsequent Five Year Plans. Firstly, housing policies need to be set in the larger context of economic development and industrialisation, and the problems likely to emerge over the next decade or two. Proposals relating to location and dispersal of industries will be of increasing importance in the solution of the housing problem. Secondly, it is necessary to coordinate more closely the efforts of all the agencies concerned, whether public, cooperative or private. The need to undertake the preparation of master plans for urban areas becomes all the greater, for without them there is no way of bringing together and maximising the contribution of different agencies towards well-defined common objectives pursued systematically over a long period. In the third place, conditions have to be created in which the entire programme of housing construction, both public and private, is oriented to serve specially the requirements of low-income groups within the community.

2. During the First Plan, the housing programme was directed mainly towards housing for industrial workers and low income groups. In the Second Plan, the programme was expanded to include schemes



of slum clearance and improvement, plantation labour housing, village housing and land acquisition and development. These programmes will be continued and expanded in the Third Plan. There will, however, be much greater emphasis on land acquisition and development, as this is basic to the success of all housing programmes. New programmes for housing economically weaker sections of the community, dock labour and pavement dwellers will also be taken up. Concerted efforts are proposed to be made to prepare master plans and regional development plans of metropolitan and industrial cities and resource regions.

3. *Outlays in the Third Plan.*—The Third Five Year Plan provides for programmes costing Rs. 142 crores for housing and urban development as compared to the anticipated expenditure in the Second Plan of Rs. 80 crores. In addition, it is hoped that the Life Insurance Corporation may be able to contribute about Rs. 60 crores towards the development of housing.

Besides these provisions, housing programmes will also be undertaken for workers employed in coal and mica mines, scheduled castes and backward classes and by several Central Ministries. Broadly, it is reckoned that in the course of the Third Plan about 900,000 houses may be constructed under different housing schemes and the construction programmes of the Ministries as compared to a total of about 500,000 in the Second Plan. Net private investment on housing and other construction during the Third Plan is placed at about Rs. 1125 crores.

4. *Housing Boards.*—Finance provided directly by Government can meet only a fraction of the demand for housing. Institutional arrangements are, therefore, required for enabling large numbers of persons, many of them with small incomes, to build for themselves. In this connection the possibility of setting up a Central Housing Board is at present under study. Such an organisation could help to channel additional funds under housing, encourage the flow of credit on easy terms, improve lending practices and provide the machinery needed for the creation of a sound mortgage market in housing. It could, for instance, raise finance directly to some extent and provide loan assistance to State Governments or State Housing Boards for purchase and development of land, construction of houses and acquisition and redevelopment of slum areas. Funds obtained from the Life Insurance Corporation and from the Central Government could be channelled through it. The existence of a Central Housing Board and of Housing Boards in the States could, in due course, secure for the development of housing resources which might not be otherwise readily available. Together, these institutions could assist in evolving housing policies

which would facilitate construction of houses by persons of limited means for their own use, and also enabling banks and other financial institutions to undertake various services.

5. *Land acquisition and development.*—Availability of building sites in sufficient numbers and at reasonable rates is essential for the successful implementation of the housing programme. In the Third Plan, a programme entailing an outlay of Rs. 26 crores (inclusive of the contributions to be made by the Life Insurance Corporation) is proposed for the scheme. The resources made available under this programme could serve as nuclei for revolving funds in the States and be utilised for bulk acquisition and development of land.

6. *Housing of industrial workers.*—At the end of the Second Plan, under the subsidised industrial housing scheme, which has been in force since 1952, about 100,000 houses had been completed and 40,000 more were in different stages of construction. Much progress cannot be achieved without employers generally accepting the housing of a substantial portion of workers as an essential obligation. Without improvements in housing conditions for industrial workers, efforts to increase industrial efficiency and productivity will be affected. Arrangements have, therefore, to be worked out both for new industries and for established industries which should be feasible from the financial and other aspects and would also result in an effective contribution towards the solution of the housing problem. It is suggested that new establishments with a prescribed limit of paid up capital (say, Rs. 20 lakhs or more) might be placed under the obligation of constructing one-half of the housing required by their labour over a period of perhaps 10 years. In the case of older establishments, while taking account of any contribution towards housing already made by an employer, the aim might be that about 50 per cent of the housing required is made available directly by industries over a period and the rest as part of the general scheme of housing development. To the extent employers are unable to construct directly, the Government or the Housing Boards may take up construction. In such cases, employers will contribute towards the cost of construction. These and other suggestions are proposed to be considered jointly with representatives of employers and workers with a view to evolving a satisfactory scheme.

7. *Housing for low income groups.*—Since the scheme began in 1954, loans for about 85,000 houses have been sanctioned and by the end of the Second Plan about 53,000 houses were completed. In the Third Plan special steps are proposed to be taken to enable economically weak sections of the community, such as those with an annual income of Rs. 1800 and less, to obtain due benefits from the scheme.

It is proposed to provide local bodies with loans at a concessional rate of interest repayable over a long period for undertaking rental housing for such sections. Housing cooperatives comprising economically weaker sections could also be given similar assistance. It is envisaged that as more institutional finance for the housing of low income groups becomes available, an increasing proportion of funds provided by Government could be utilised for housing schemes for the economically weaker sections.

8. *Slum clearance and improvement.*—It is proposed that slum areas should be surveyed and classified in two categories, namely, areas which have to be cleared and redeveloped completely, and those which can be made habitable through the improvement of environmental conditions. If owners of slum properties falling within the second category fail to carry out the improvements, these could be undertaken through local bodies and the cost recovered from the owners and, where necessary, the properties could be acquired or requisitioned. Where improvements are carried out by local bodies in slum areas on public lands or requisitioned lands, it may be necessary to give them grants for providing essential services. In selecting slum areas for clearance and improvement special attention should be given to areas predominantly inhabited by sweepers and scavengers. The cooperation of voluntary organisations and social workers should be fully enlisted in carrying out the programmes of slum clearance and improvement.

The existing slum clearance scheme gives priority to the slum problems of six major cities, namely, Calcutta, Bombay, Madras, Delhi, Kanpur and Ahmedabad. In the Third Plan, the maximum effort under the scheme should continue to be concentrated on these six cities. In principle, however, the slum clearance and improvement work could be taken up by State Governments wherever the slum problem exists in acute form. In view of limitations of resources, however, ordinarily towns and cities with a population of 100,000 or more should receive priority.

9. While steps are being taken to clear and improve the existing slums, it is equally important that new slums should not be allowed to grow up. This is by no means an easy object to achieve. Besides preparing and strictly implementing master plans for all growing towns and cities, it will be essential to enforce municipal bye-laws and building regulations and, at the same time, to expand housing facilities for low income groups and the economically weaker sections. As transitional measures, night shelters and dormitory accommodation for pavement dwellers and non-family workers should have considerable urgency.

Similarly, the housing of sweepers and scavengers must receive special consideration.

#### URBAN PLANNING AND LAND POLICY

10. The number of cities with a population of 100,000 or more increased from 75 in 1951 to 115 in 1961 and their population now forms about 43 per cent of the total urban population. As an important aspect of the process of economic and social development, urbanisation is closely connected with many other problems such as migration from villages to towns, levels of living in rural and urban areas, relative costs of providing economic and social services in towns of varying size, provision of housing for different sections of the population, provision of facilities like water supply, sanitation, transport and power, pattern of economic development, location and dispersal of industries, civic administration, fiscal policies and the planning of land use. Of these aspects, in the long run, the most decisive are the pattern of economic development and the general approach to industrial location. They influence specially the manner in which urban areas which are developing rapidly are tending to grow up. The main ingredients of developmental policy are the following :

- (1) as far as possible, new industries should be established away from large and congested cities;
- (2) in the planning of large industries, the concept of region should be adopted. In each case, the area of planning should extend beyond the immediate environs to a larger area for whose development the new industry should serve as a major focal point;
- (3) in community development projects or other areas within a district, the rural and urban components of development should be knit into a composite plan based in each case on schemes for strengthening economic inter-dependence between towns and the surrounding rural areas; and
- (4) within each rural area the effort should be to secure a diversified occupational pattern in place of the present extreme dependence on agriculture.

11. Much of the deterioration which occurs in living conditions in rapidly growing urban areas is due to the high costs of urban development and the inability to meet them. The situation is further accentuated by the existence of unemployment, overcrowding and the growth of slums and the fact that a significant proportion of the population in many cities is without shelter. There are certain minimum directions in

which action should be taken during the Third Plan so that, for the future at any rate, a correct course is set. These are:

- (i) control of urban land values through public acquisition of land and appropriate fiscal policies;
- (ii) physical planning of the use of land and the preparation of master plans;
- (iii) defining tolerable minimum standards for housing and other services to be provided for towns according to their requirements and also prescribing maximum standards to the extent necessary; and
- (iv) strengthening of municipal administrations for undertaking new development responsibilities.

12. High land prices are the most important element in raising housing and other costs and in restricting the scale on which improvements can be undertaken in the interests of low income groups. Apart from normal increases, a major factor in raising land prices is speculation. Conditions for rising land values exist in almost every urban area, but they are most marked where new industries or new public or other activities are being established. Without exception, the need for adequate measures of taxation of urban land and property exists in all towns. In several urban areas, it is necessary to take more drastic measures, legislative and others, for freezing land values and for undertaking large-scale public acquisition of land. Specific measures for checking rise in land values can become effective if there is strict regulation of the uses of land, especially in and around metropolitan cities, large and growing cities and new industrial towns. It is for such towns that the preparation of master plans is of special importance.

Among the principal steps for controlling land prices are the freezing of land values with a view to early acquisition of land by public authorities, acquisition and development of land in accordance with the interim general plans, allotment of land on a lease-hold basis, betterment levies and taxation of agricultural lands put to non-agricultural uses, capital tax on transfer of free-hold lands, taxation of vacant plots in developed areas with power to acquire if they are not built upon within specified periods, ceiling on the size of individual plots and limiting the number of plots which a single party may be permitted to acquire and, finally, determination of appropriate norms of rent and regulation and control over rents. These measures lie at the base of proposals for planned urbanisation.

13. To secure orderly development of towns and cities, town planning is indispensable. The first step in this direction will be the

preparation of interim general plans establishing the broad pattern of land use to which developments should conform. This should be followed by the preparation of detailed master plans for urban and regional development. Master plans should be drawn up in the first instance for metropolitan cities, State capitals, port towns, new industrial centres and large and growing cities where, in the ordinary course, conditions are likely to deteriorate further. A tentative list\* of such towns and cities has been drawn up for the Third Plan period. The primary responsibility for the preparation of master plans lies with State Governments and the local administrations concerned. Limited provision has been made at the Centre for assisting States in the preparation of master plans. An essential preliminary is the enactment of suitable legislation on town and country planning. It is necessary that State Governments establish town planning organisations with adequate trained personnel and take up specific towns and areas for practical action.

14. In redeveloping existing cities and building up new towns, it is of the utmost importance that the regional approach should be followed. This is necessary both for securing a proper balance between social and economic development and for achieving greater cultural unity and social integration in the life of developing urban communities. Greater attention to the environment and appreciation of day to day needs of the people can go a long way to give to all citizens a sense of community in urban life.

15. At the local level, municipal administrations alone can undertake satisfactorily the task of providing the services needed for development in urban areas, expansion of housing and improvement of living conditions. Most municipal administrations are not strong enough to carry out these functions. They should be sufficiently strengthened through increase in

*(a) metropolitan cities, State capitals and port towns.	(b) industrial centres	(c) resource regions
Ahmedabad, Bangalore, Bhopal, Cochin, Delhi (Metropolitan region), Greater Bombay, Greater Calcutta, Hyderabad— Secunderabad, Jaipur, Kandla, Kanpur, Lucknow, Madras, Patna, Poona, Shillong, Srinagar, Varanasi, Visakhapatnam and Trivandrum.	Allahabad, Asansol, Barauni, Bhadravati, Bhilai, Bokaro, Chit- taranjan, Coimbatore, Dehri-on-Sone, Dhan- bad, Digboi, Durga- pur, Gauhati, Gorakh- pur—Deoria, Guntur, Jamshedpur, Kotha- gudam, Mirzapur, Moghulsarai, Nangal, Panvel, Ranchi, Rishi- kesh—Hardwar, Rourkela, Sindri, Tinsukhia, Vijayawada and Warangal.	Bhakra-Nangal area, Damodar Valley, Dandakaranya, Rajas- than Canal area and Rihand area.

resources and personnel and enlargement of jurisdiction and functions. Where the present limits of the selected urban areas are insufficient to cope with the problem, they should be extended. In the case of growing towns, it will be desirable from the beginning to provide for larger rather than smaller municipal areas, so that these towns and the rural areas surrounding them can be developed together in a coordinated manner without having to face difficulties later on account of separate jurisdictions. These developments will be facilitated when, as has been envisaged, a large proportion of towns have separate development plans of their own and these are integrated with the plans of States.

### RURAL HOUSING AND PLANNING

16. Rural housing is intrinsically a part of community development and of village planning. The specific programme for rural housing as such is intended to supplement the resources of the community development movement at the level of the block and the village by way of assistance in the form of technical advice, demonstration, provision of improved designs and layouts, better use of local materials and, to a limited extent, provision of finance. Its essential object is to help create healthy environmental conditions for all sections of the village population and for balanced development of rural life as a whole.

17. The village housing scheme, which was taken up four years ago, provides for selection of villages in groups of four to six and the preparation of layout plans for these villages after carrying out physical and socio-economic surveys. At the end of the Second Plan, surveys of about 2000 villages had been completed and layout plans for 1600 villages drawn up. Against 15,400 houses for which loans were sanctioned, about 3000 houses had been completed. The following suggestions arise from the experience of the working of the scheme during the Second Plan:

- (1) It is important that a group of villages should be taken up together instead of isolated villages, so that it may be possible to set up a brick kiln or arrange for the supply of components on a cooperative basis to meet a continuing demand. The full impact of a housing programme by way of increase in employment and improvement in environmental conditions cannot be otherwise realised.
- (2) The first claim on the available resources should be on account of the extension of the village site, improvement of roads and drainage and allotment of land for essential purposes of interest to the community as a whole.
- (3) The key to improved housing is the availability of land for the extension of the village site. To the greatest extent possible,

the community itself, through mutual arrangement, should be expected to provide the additional land required. However, for assisting the village community to acquire land for providing house sites for agricultural workers and for Harijans, there is scope for a limited measure of assistance.

- (4) The first place in the programme for improving village housing should be given to housing for scheduled castes, agricultural workers and those sections of the community whose housing conditions are specially deplorable. For scheduled tribes and scheduled castes, in particular, provisions available under the programme for the welfare of backward classes should be utilised in a coordinated manner along with other provisions.
- (5) In the rural housing programme there should be much more stress than hitherto on community effort in improving roads and drainage, contribution by way of land for the extension of the village site and mutual aid in constructing improved housing. The rural housing programme should be linked up more closely with different schemes of community development such as provision of water supply, roads, drainage, public health, education, etc. Rural housing should also be effectively coordinated with other connected economic programmes.
- (6) The rural housing scheme lays down considerations for deciding which villages may be selected, e.g., villages affected by floods or having a substantial population of backward classes and agricultural labourers or in which some displacement of the population may have occurred. Villages with concentrations of artisans should also receive preference. In the selection of villages evidence of cooperative self-help and willingness on the part of the village community to contribute land for the village site and to give priority to the housing for Harijans and other backward classes should be important considerations.

18. *House sites for agricultural workers.*—Out of the provision for rural housing, it is proposed to earmark Rs. 5 crores by way of grant for assisting States in securing house sites for landless agricultural workers in villages in which they form a fairly large part of the population and a comprehensive housing programme is taken in hand.

### III

#### DEVELOPMENT OF BACKWARD CLASSES

Programmes for bringing scheduled tribes, scheduled castes and other backward classes to the level of the rest of the community are amongst the most significant undertaken during the First and Second



Plans. Article 46 of the Constitution laid down the Directive Principle that the State shall promote with special care the educational and economic interests of the weaker sections of the people and, in particular, of scheduled castes and scheduled tribes, and shall protect them from social injustice and all forms of exploitation. During the next two or three Plans, measures for advancing the economic and social interests of scheduled tribes, scheduled castes and other backward classes should be so intensified that they do in fact reach a level of well-being comparable with that of other sections of the population.

2. Development programmes for the welfare of backward classes, for which provision is made in the Five Year Plans, are intended to supplement benefits accruing from programmes of development in different fields. In the ordinary course, the weaker sections of the population are not able to secure their fair share of the benefits of provisions made under different heads. To enable them to do so, it is desirable that the normal patterns of assistance should provide, wherever necessary, for an element of special consideration for the weaker sections, and in particular for the backward classes. While general development programmes should be so designed as to cater adequately for the backward classes, the special provisions in the Plan should be used as far as possible for securing additional and more intensified development.

3. For the welfare of backward classes, the Third Plan at present provides for programmes estimated to cost about Rs. 114 crores compared to Rs. 79 crores in the Second Plan and Rs. 30 crores in the First. Of this amount, about Rs. 42 crores are intended for schemes of educational development, Rs. 47 crores for economic uplift schemes and Rs. 25 crores for health, housing and other schemes. The problems of scheduled castes and other backward classes are essentially those of the economically weaker sections of the community, who suffer also in larger or smaller measure from social disabilities. Denotified tribes constitute a special group whose assimilation into the larger community presents peculiar difficulties, but is nonetheless a matter of great urgency. In the context of a rapidly developing economy, scheduled tribes can no longer remain in the isolation which characterised them in the past and in many areas, with the onset of industrialisation and of large irrigation and power projects, they confront complex problems of adjustment and rehabilitation. Although there are certain common considerations and approaches, scheduled tribes living in different parts of the country vary a great deal among themselves, and the special conditions and problems of different tribal groups have always to be kept in view.

## SCHEDULED TRIBES

4. While the tribal areas can scarcely remain isolated, it would be an error to over-administer them in the name of development. A middle way between these extreme positions has to be found. In facilitating the development of agriculture, communications, health and education services, the tribal people should be enabled to develop along the lines of their own genius, with genuine respect and support for their own traditional arts and culture and without pressure or imposition from outside. In tribal areas every effort should be made to train and build up a team of their own people to do the work of administration and development, the constant aim being to develop local personnel both as official functionaries and as social workers. In selecting programmes the stress should be on those calculated to mitigate poverty, impart new skills, promote health and better living and improve communications without, however, upsetting the stability of social and cultural values and the scheme of obligations within the tribal community.

5. Execution of development programmes among tribal people meets with several practical difficulties and limitations, specially inadequacy of local personnel and of effective means of communication between personnel engaged in development work and the traditional leadership and institutions. In their interim report the Scheduled Areas and Scheduled Tribes Commission have drawn attention, amongst others, to the following aspects of the problem :

- (1) there is need for strengthening and in some cases for reorganising the administrative set-up for the scheduled areas;
- (2) there is need for a larger effort through special institutions and otherwise for giving orientation training to personnel at various levels working in tribal areas;
- (3) there are a large number of problems emerging in tribal areas which call for scientific study and evaluation; and
- (4) non-official voluntary organisations should be adequately assisted on the basis of programmes which are carefully formulated and coordinated with other activities.

6. In drawing up programmes, it is proposed that priority shall be given to the economic rehabilitation of tribal people. In the programme for education, there should be assistance at the middle and secondary stages for freeships and stipends and hostels. Scholarships and freeships should also be provided for technical training. The main highways should be undertaken as part of the general

development programme and resources provided for scheduled tribes should be used for culverts, causeways and bridges for connecting inaccessible areas, approach roads, jeepable forest roads and repairs to existing communications with remote areas. The Plan provides for a programme for 300 tribal development blocks, which aim at intensive and coordinated development in tribal areas on the general pattern of community development, but modified to suit tribal conditions.

7. To a large extent improvement in the economic conditions of scheduled tribes depends upon the success in raising levels of agriculture. Wherever settled cultivation already exists, there should be the utmost stress on the adoption of better implements and technical guidance. Where shifting cultivation prevails, the primary aim should be to ensure that it is carried out on a scientific basis so as to diminish its disadvantages and assist in maintaining the fertility of the soil. Among the tribal people there are many factors in favour of development along cooperative lines. But the problem of past indebtedness has to be dealt with in a more basic way than in the past. In the plans of States, there are several schemes for the promotion of cottage industries in tribal areas. It is essential to study closely the arts or crafts which already exist in each area and to consider how these could be developed and also the new crafts which could be introduced on an economically satisfactory basis. The development programmes for scheduled tribes are proposed to be reviewed at a later stage in the light of the proposals and recommendations which the Scheduled Areas and Scheduled Tribes Commission may make in its final report. The precise additions needed in the provisions for scheduled tribes, the extent to which the further outlays proposed under different heads can be met from general allotments for them in the Plan and the respective contributions of the Centre and of individual States will be considered in due course.

8. In recent years, several large projects for the development of irrigation, power and industry have been located in areas inhabited by tribal population. As an immediate effect of these projects, there has been a considerable measure of dislocation and uprooting. Efforts are made to provide compensation in land or cash or both. It has been observed that compensation taken in cash is soon squandered, and frequently, where compensation has taken the form of land, for a variety of reasons, satisfactory resettlement has not been achieved. This problem is likely to grow in magnitude and should be handled with extreme care. It is suggested that in dealing with the problems of eviction and resettlement, where these cannot be avoided, the

agency of Tribal Welfare Departments and of voluntary organisations should be utilised to the extent possible.

9. Although much has been accomplished during the first two Plans, Departments in the States set up for carrying out development programmes among the tribal people are not on the whole sufficiently equipped with personnel. It might be worth considering whether the Central and State Governments should not now cooperate in forming a special cadre comprising technical and other personnel for work in scheduled areas and in other areas which have concentrations of tribal populations.

### SCHEDULED CASTES

10. As distinguished from scheduled tribes, scheduled castes are widely dispersed and, while they form part of the general community, the social disabilities from which they suffer and their economic weaknesses place them in a special category. About Rs. 30 crores have been provided for scheduled castes in the plans of States. About one-half of this amount is for educational schemes and the balance is divided about equally between (a) schemes for economic uplift and (b) health, housing and other schemes.

11. The programmes for scheduled castes included in the Third Plan are intended to provide for certain special schemes which supplement development programmes undertaken for the community as a whole. While the bulk of the allocations are made in the plans of the States, the Ministry of Home Affairs have provided for the following Centrally sponsored schemes:

- (1) improvement of the working conditions of persons engaged in unclean occupations, including eradication of the practice of carrying night soil as head loads ;
- (2) subsidies for housing for sweepers and scavengers ;
- (3) provision of house sites for members of scheduled castes—
  - (a) who are engaged in unclean occupations, and
  - (b) who are landless labourers.
- (4) award of post-matric scholarships ; and
- (5) aid to voluntary organisations.

Under the general housing programmes, funds are earmarked for acquisition and development of lands for granting house-sites to agricultural workers, amongst whom members of scheduled castes form a considerable proportion.

12. Voluntary organisations are given assistance for educating the public regarding the removal of untouchability. It is important that

voluntary organisations should go beyond work relating to publicity and propaganda and should actually establish or help to set up institutions such as schools, hospitals, housing cooperatives, industrial centres, etc., and should assist in running them.

13. There is need for fuller and more frequent evaluation of the impact of development programmes on the conditions of scheduled castes and other backward classes so that, in the light of experience, new methods may be adopted and the existing arrangements strengthened.

#### DENOTIFIED TRIBES

14. Denotified tribes constitute a special group whose assimilation into the larger community presents peculiar difficulties, but is nonetheless a matter of great urgency. The repeal in 1952 of the Criminal Tribes Act, 1924 embodies a fundamental change in the approach towards ex-criminal tribes from surveillance and punishment to correction, rehabilitation and assimilation into the wider community. The rehabilitation of these tribes presents many problems. In view of the small results achieved thus far, it is considered that their needs should be studied in each area and programmes could be drawn up on the basis of the following suggestions of the Study Team set up by the Committee on Plan Projects.

- (1) the need for a combined correctional and welfare approach for the rehabilitation of denotified communities, which should be supported by a programme of social education,
- (2) formulation of special economic programmes which keep in view the character of the population, in particular, their adventurous spirit and traditional skills,
- (3) organisation of industrial and other cooperatives,
- (4) provision of opportunities for employment in the public services supported by way of additional training and orientation facilities, and
- (5) where the denotified tribes constitute a sizable population, cadres of trained workers, who are familiar with their social and cultural background and can work closely with them, should be built up.

The objective of assimilation should guide the programme of rehabilitation and development from the very start and progressive and forward-looking elements among the denotified tribes themselves should be assisted and encouraged to play an increasing part in this effort.

## IV

## SOCIAL WELFARE

Development over the past decade of social welfare activities as an integral part of the First and Second Plans has a significance which extends beyond the range of services established or the extent of resources utilised. These activities express the concern of the community for the welfare of its many vulnerable sections and emphasise an essential value in national development. In drawing large numbers of voluntary workers, specially women, into the field of creative social service, the community is itself enriched and strengthened.

2. The social welfare programmes, which have been implemented by voluntary organisations with the assistance of the Central and State Governments, include, amongst others, welfare extension projects undertaken by the Central and State Social Welfare Boards, programmes relating to social defence, social and moral hygiene and after-care services and other welfare programmes. In developing them, the object is to replace individual and haphazard relief and charity by organised and sustained activity for education, welfare and rehabilitation undertaken with the general support of the community.

3. A variety of welfare services have been developed in recent years through financial support provided by the Central and State Governments. After each phase of development, adequate arrangements have to be made for the continuance of the new services on a permanent basis. The resources provided under the Third Plan are being utilised both for expanding the existing welfare services and for assisting voluntary organisations to continue those already established. To this extent, development of new services tends to be limited. In the interest of future development it will be desirable to distinguish between resources required to enable voluntary organisations to maintain the services already established and the resources provided for new development.

4. A stage has reached in the development of welfare services when, for the better utilisation of the available resources and improvement in the quality of the services offered, it is essential that the various Government agencies concerned, both at the Centre and in the States, should achieve a larger measure of coordination among themselves. Voluntary organisations should develop along specialised lines, each selecting a limited area of activity in which its workers gain experience and intimate knowledge of problems.

5. In its very nature, progress in social welfare is difficult to measure. Its true tests are the numbers of voluntary workers who

participate in social welfare activities and the response from each local community towards the solution of its own social problems. Whatever the shortcomings—and there are bound to be many in so difficult a field—the record of work over the past decade has been in many ways outstanding. About 6000 voluntary welfare organisations in different parts of the country have been assisted by the Central and State Social Welfare Boards. The Central and State Boards have also been responsible for the establishment of urban community centres, production units to assist women to supplement their incomes and night shelters in urban areas. A large number of adult women were enabled through condensed courses to attain the minimum educational qualifications necessary for vocational training and employment. Establishment of welfare extension projects was another important development in this field. Each extension project provides maternity and child health services, craft classes, social education for women and care of children through balwadis.

6. In the Third Plan, provision has been made for programmes involving a total outlay of Rs. 28 crores—Rs. 16 crores at the Centre and Rs. 12 crores in the States. The programmes of the Central Social Welfare Board, including assistance to voluntary organisations and welfare extension projects, envisage a total outlay of Rs. 12 crores. In addition to the provision for social welfare programmes, schemes for child welfare entailing a total cost of Rs. 3 crores have been provided for under Education. Other schemes to be implemented under the social welfare programme relate to urban community welfare projects, training, research and surveys, social defence and after-care and the setting up of a Central Bureau of Correctional Administration. It is also proposed to make a small beginning in the direction of assisting certain categories of persons without any means of livelihood or support—the physically handicapped, old persons unable to work and women and children.

7. Considerable emphasis is being placed in the Third Plan on child welfare programmes. In each State and Union Territory at least one pilot project in child welfare will be taken up on the basis of complete coordination in services provided by medical and public health, education, social welfare and other agencies. It is also proposed to undertake pre-school education schemes and a training programme for child welfare workers (Bal Sevikas).

8. In the programme for social defence, priority is given to schemes for the prevention and treatment of juvenile delinquency, social and moral hygiene, suppression of immoral traffic in women and girls. With the passing of the Children's Act of 1960, which applies

to Union Territories, it is suggested that, on essential matters, there should be uniformity throughout the country. It is important to consider how the present programme for social defence could be worked even more effectively and the lines along which the community and the family could participate more fully in the work of rehabilitating women and girls.

9. Beggary is an age-old social evil which has been allowed to continue far too long and, apart from the demoralisation it causes, is a source of discredit to the country. The problem has been studied in several places, and it is important that States and local bodies should now endeavour to deal with it effectively. In the first instance, beggary should be eradicated from large cities, places of pilgrimage and tourist centres. The problem of child beggars should be first isolated, as children who take to begging are often victims of gangs of exploiters. Beggars who are diseased, disabled, infirm or aged, should be taken care of in residential institutions run by voluntary welfare organisations. Able-bodied beggars should be rounded up and sent to work camps to be organised at the sites of various projects. Begging by able-bodied persons should be a public offence. It would be desirable to undertake Central legislation for the control and eradication of beggary and vagrancy.

10. For different types of handicapped groups, the primary object of the services provided should be to assist them to rehabilitate themselves through work. These services should be further developed along the following lines :

- (a) teaching handicapped persons in their homes,
- (b) providing work in the homes or in the neighbourhood for those not able to move,
- (c) providing recreational facilities for the handicapped, the aged and the infirm, and
- (d) providing assistance by way of special aids.

11. Urban community development has large possibilities for bringing about social and environmental change in urban communities despite their heterogeneous character. The success of this programme will depend by and large on the extent of self-help evinced by the people, the role of the official being essentially to supplement voluntary efforts. There is a large scope in this field of work for voluntary organisations.

## PROHIBITION

Following the Directive Principle in the Constitution and the Resolution of the Lok Sabha in March, 1956, suggesting that prohibi-



tion should be an integral part of planned development, the Second Five Year Plan set out a series of steps towards the implementation of the prohibition programme. Action has been taken in a number of States on these recommendations, but for the country as a whole progress has been slow. A Central Committee to review the progress of prohibition programmes and to coordinate activities in different parts of the country was set up towards the end of 1960.

2. Prohibition is essentially a measure of social welfare. Its success as a voluntary movement for social reform depends on a number of conditions, in particular on—

- (1) its acceptance as a public policy accompanied by concrete administrative steps to make the policy a reality;
- (2) support of a large section of public opinion and active participation on the part of leading voluntary organisations and large numbers of social workers;
- (3) finding practical solutions to problems such as employment and arranging for the utilisation and processing of products which would otherwise be used for the production of liquor; and
- (4) enabling State Governments to meet possible loss of revenue on account of the progress of prohibition.

3. The question of loss of revenue on account of prohibition is an important one. This loss may itself be a temporary rather than a permanent effect and on balance may turn out to be smaller than is sometimes reckoned. If the movement of prohibition proceeds on the right lines—and this is the assumption on which proposals for prohibition must rest—it should make for a healthier life for the individual and the community, should help make the individual worker and his family more productive and should augment national savings. In the initial stages, however, it may be that as a result of measures introduced in pursuance of prohibition, the revenue from excise may fall below the estimates which States have taken into consideration while formulating their plans. This aspect should be considered further by the Central and State Governments. Obviously, financial reasons alone could not lead to a fundamental break in carrying out a social programme which is considered necessary in the interest of the mass of the people throughout the country.

4. Given this approach to the financial aspects of prohibition, it should be possible for each State to consider further steps. It is not envisaged that States should fix target dates for introducing complete prohibition, for such target dates are in practice difficult to work out or to adhere to. Nevertheless, a countrywide approach would make it

easier for all States to ensure implementation and to check inter-State and inter-district smuggling. The measures recommended in the Second Plan constitute a limited but practical programme which should be implemented in the course of the next two or three years. It should be possible also for States which have introduced prohibition in some districts to extend it steadily to other areas.

5. The question of the means to be employed and the agencies available is of special importance in a programme like prohibition. Obviously, if prohibition were to rest primarily on enforcement by the police and by excise staff, not much progress could be made. The main reliance has, therefore, to be on—

- (a) the creation of a growing public opinion in favour of prohibition conceived as a social welfare measure in the interest of the general mass of the people;
- (b) voluntary organisations, who should be given the necessary support and assistance by the Government in carrying out social and educational programmes;
- (c) implementation of various development programmes undertaken by government agencies in education, health, social welfare, etc., with due emphasis on the significance of prohibition; and
- (d) availability in canteens of cheap and nutritious foods and non-alcoholic beverages, and encouragement of sports and recreational activities on a group and community basis.

With a view to achieving greater progress in these directions, it would be useful to provide financial assistance to voluntary organisations for educational and promotional work among the people and also to give a measure of support to other activities which will assist the progress of prohibition.

## VI

### REHABILITATION OF DISPLACED PERSONS

After Partition, about 8.9 million persons migrated from Pakistan into India, about 4.7 million from West Pakistan and the rest from East Pakistan. Between 1947-48 and 1960-61, besides Rs. 128 crores spent on relief and other operations, a total outlay of about Rs. 239 crores has been incurred on the rehabilitation of displaced persons, about Rs. 133 crores being for displaced persons from West Pakistan and Rs. 106 crores for those from East Pakistan.

2. The rehabilitation of displaced persons from West Pakistan was undertaken in the main before and during the First Plan and of those from East Pakistan mainly within the First and Second Plans.

Rehabilitation programmes have covered a wide range of activities, including resettlement on land, provision of housing, construction of township and colonies, extension of education and health services, financial assistance for setting up business and industry, and starting of new industries.

3. The task of rehabilitating displaced persons is gradually coming to an end. In respect of displaced persons from West Pakistan, provisions in the Third Plan are limited to residual requirements for housing schemes and assistance for educational and health services. For displaced persons from East Pakistan, the two specific objectives are the rehabilitation of 28,600 families residing in 'camps' and other centres in West Bengal and of about 200,000 partially rehabilitated displaced families living in West Bengal. The development of the Dandakaranya project was taken up in the Second Plan with the object primarily of settling displaced families from East Pakistan who were still in 'camps' in West Bengal and, along with this, for promoting the welfare of the local population, specially the Adivasis.

4. In its closing phases, rehabilitation of displaced persons takes the form more and more of specific tasks remaining over from an earlier period and merges into the larger efforts to rebuild the economy of the nation and especially of those States and regions which have borne the greatest burdens. Within the expanding national economy greater integration between rehabilitation and development helps the speedy economic assimilation of displaced persons.

## CHAPTER 20

### LABOUR POLICY

Labour policy has been evolving in response to the specific needs of industry and the working class and to suit the requirements of a planned economy. The consensus of opinion of the parties concerned—employers, workers and Government—is secured through joint consultation, the apex of the tripartite machinery being the Indian Labour Conference. This consensus, as reflected in legislation and administrative action, takes on the strength and character of a national labour policy, operating on a voluntary basis. In the course of the Second Plan, a new approach was introduced to counteract unhealthy trends and give a more positive orientation to industrial relations, based on moral rather than legal sanctions. The stress now is on prevention of unrest by timely action at the appropriate stages. Significant developments during the Second Plan period included the introduction of the Code of Discipline in Industry and the Code of Conduct, schemes for workers' participation in management and workers' education, and a growing awareness of the importance of higher productivity in industry. In the context of the rising tempo of industrialisation, the working class has an important role and a growing responsibility during the Third Plan. The large expansion of the public sector will make a qualitative difference in the tasks set for the labour movement and will facilitate the transformation of the social structure towards socialism.

2. *Industrial relations.*—A full awareness of the obligations under the Code of Discipline has to extend to all employers and workers and it has to become a living force in the day to day conduct of industrial relations. Ways will be found for increasing the application of the principle of voluntary arbitration. It is essential that works committees are strengthened and made an active agency for the democratic administration of labour matters. The scheme of Joint Management Councils will be progressively extended to new industries and units so that it may become a normal feature of the industrial system.

3. A large-scale expansion of the workers' education scheme is visualised in the Third Plan period. It is intended to diversify the programme and secure fuller association of workers' representatives in its running.

4. Trade unions should be accepted as an essential part of the apparatus of industrial and economic administration and should be

prepared for the discharge of these responsibilities. Their leadership has to grow progressively out of the ranks of the workers and this process will be greatly accelerated as the programme of workers' education gathers momentum. The basis for the recognition of trade unions, adopted as a part of the Code of Discipline, will pave the way for the growth of a strong and healthy trade union movement.

5. *Wages and social security*.—For better implementation of the Minimum Wages Act, the machinery for inspection has to be strengthened. Wage Boards will be extended to other industries, according to circumstances. A Commission will be appointed to study the problems connected with bonus claims and to evolve guiding principles and norms for the payment of bonus.

6. The Employees' State Insurance Scheme will be extended to all centres where there is a concentration of 500 or more industrial workers, bringing the total coverage to about 30 lakh workers. The Employees' Provident Fund Scheme which now covers 58 industries will be further extended.

7. The social security approach has so far extended mainly to wage earners in organised industry. There are some groups whose condition calls for closer attention on the part of the community. These include, in particular, the physically handicapped, old persons unable to work and women and children, where they are altogether lacking in the means of livelihood and support. With a view to enabling voluntary and charitable organisations, municipal bodies, Panchayats and Panchayat Samitis to develop their activities with the help of local communities, and giving them a little support, a proposal to constitute a small relief and assistance fund is being examined and will be considered further in cooperation with States and voluntary organisations.

8. *Working conditions, safety and welfare*.—Steps will have to be taken to secure the more effective implementation of the statutory provisions regarding working conditions, safety and welfare. In this regard, the Central Labour Institute and the Regional Labour Institutes have a special role to play in improving working conditions and efficiency. A Standing Advisory Committee will be set up to promote measures for bringing down the incidence of accidents in factories. A National Mines Safety Council will be set up to deal with safety education and propaganda in the mining industry. The question of separate safety legislation for building and construction workers will be examined. Welfare funds will be constituted for workers in the manganese and iron ore mining industries on the pattern of similar welfare funds for coal and mica miners. Trade unions and voluntary organisations

will be encouraged to take greater interest in the running of cooperative credit and consumer societies, as also other activities which are based on the principle of cooperation. The aspects of workers' housing and recreation will also receive greater attention. The problems of workers engaged in agriculture and unorganised industries should become a matter of special concern to Government and workers' organisations.

9. *Employment and training schemes.*—Additional 58,000 seats will be provided under the craftsmens' training programme, raising the training capacity to about 100,000 craftsmen. Separate training facilities will be provided for educated youth to widen the scope of their employment. The capacity of the three existing Central Training Institutes for craft instructors will be raised, and three other Central Institutes will be set up during the Third Plan period. The Apprenticeship Training scheme will be placed on a compulsory basis and a Bill is proposed to be introduced in Parliament. About 100 employment exchanges are expected to be opened during the Third Plan with the object of providing at least one exchange in each district. It is intended to organise, on a limited basis, a relief and assistance fund for retrenched workers.

10. *Productivity.*—Management should provide the most efficient equipment, correct conditions and methods of work, adequate training, suitable psychological and material incentives for the workers. Industry, trade unions and Government should cooperate in organising training programmes for the workers already on-the-job and the fresh recruits in order to improve their skill and efficiency. No real advance in the workers' standard of living is possible in this country without a steady increase in productivity. Workers have, therefore, to insist on and not resist the progress of rationalisation in their own interest and in the larger interest of the country. The scope for rationalisation can be considerably extended if effective arrangements are made for re-training and transfer of workers to other jobs, on the basis of the workers' consent. The formulation of the Code of Efficiency and Welfare will now be taken up for consideration by the Indian Labour Conference. Greater attention should be given to the training of management at various levels in employer-employees relations.

11. A small central committee will be constituted for coordinating labour research. In addition, it is intended to provide new institutional facilities outside the set-up of the Government for research in labour matters.

## ANNEXURE I

## Production and development : progress and targets

item	unit	1950-51	1955-56	1960-61 estimated	1965-66 targets	percentage increase in 1960-61 over 1950-51	percentage increase in 1965-66 over 1960-61
1	2	3	4	5	6	7	8
<b>1. agriculture and community development</b>							
<b>1.1 agricultural production</b>							
foodgrains	million tons	52.2(a)	65.8(a)	76.0	100.0	46	32
cotton	million bales	2.9	4.0	5.1	7.0	76	37
sugarcane-gur	million tons	5.6	6.0	8.0	10.0	43	25
oilseeds	million tons	5.1	5.6	7.1	9.8	39	38
jute	million bales	3.3	4.2	4.0	6.2(b)	21	55
tea	million lb	613	678	725	900	18	24
tobacco	000 tons	257	298	300	325	17	8
fish	million tons	0.7	1.0	1.4	1.8	100	29
milk	million tons	17.1	19.3	22.0	25.3	29	15
wool	million lb	60	65	72	90	20	25
<b>1.2 agricultural services</b>							
area irrigated (net total)	million acres	51.5	56.2	70.0	90.0	36	29
land reclamation (additional area) (d)	million acres	—	2.7	1.2	3.6	—	200

(a) Estimates of production adjusted for changes in statistical coverage and methods of estimation up to 1956-57.

(b) Excludes mesta which may provide an additional 1.3 million bales in the Third Plan.

(d) Relates to five-year period.

item	1	2	3	4	5	6	7	8
		unit	1950-51	1955-56	1960-61 estimated	1965-66 targets	percentage increase in 1960-61 over 1950-51	percentage increase in 1965-66 over 1960-61
soil conservation (additional area benefited) (d)		million acres	—	0.7	2.0	11.0	—	450
nitrogenous fertilisers consumed		000 tons of N	55	105	230	1000	318	335
phosphatic fertilisers consumed		000 tons of P <sub>2</sub> O <sub>5</sub>	7	13	70	400	900	471
seed farms (d)		number	—	—	4000	4800	—	20
1.3 community development								
blocks		number	—	1069	3110	5223	—	68
villages covered		000 numbers	—	106	368	550	—	49
population served		million numbers	—	69	204	359	—	76
1.4 cooperation								
primary agricultural credit societies		000 numbers	105	160	210	230	100	10
short and medium term loans advanced		Rs. crores	22.9	49.6	200.0	530.0	773	165
2. power								
2.1 electricity								
installed capacity		million kW	—	3.4(c)	5.7	12.7	148	123
generated		million kWh	6575(c)	10777(c)	19850	45000	202	127
2.2 towns and villages electrified		000 numbers	3.7	7.4	23.0	43.0	53	87



3. minerals													
iron ore	.	.	.	.	.	million tons	.	3.2	4.3	10.7	30.0	25.4	180
coal	.	.	.	.	.	million tons	.	32.3	38.4	54.6	97.0	69	76
4. large-scale industries													
4.1 metallurgical industries													
steel ingots	.	.	.	.	.	million tons	.	1.4	1.7	3.5	9.2	150	163
finished steel	.	.	.	.	.	million tons	.	1.0	1.3	2.2	6.8	120	209
pig iron for sale	.	.	.	.	.	million tons	.	0.35	0.38	0.90	1.50	157	67
alloy, tool and special steels (finished)	.	.	.	.	.	000 tons	.	—	—	40	200	—	400
aluminium	.	.	.	.	.	000 tons	.	3.7	7.3	18.5	80.0	400	332
copper (fire-refined and electrolytic)	.	.	.	.	.	000 tons	.	6.6	7.5	8.9	20.0	35	125
4.2 mechanical and electrical engineering industries													
cement machinery	.	.	.	.	.	value in Rs. lakhs	.	—	34(c)	60	450	—	650
sugar machinery	.	.	.	.	.	value in Rs. lakhs	.	—	19	330	1000	—	203
industrial boilers	.	.	.	.	.	value in Rs. lakhs	.	—	—	40	2500	—	6150
machine tools (graded)	.	.	.	.	.	value in Rs. lakhs	.	34	78	550	3000	1518	445
ball and roller bearings	.	.	.	.	.	million numbers	.	0.1	0.9	2.9	14.0 (c)	2800	383

(c) Relates to calendar year.

(d) Relates to five-year period.

(e) By working the capacity on three shifts.

item	unit	1950-51	1955-56	1960-61 estimated	1965-66 targets	1960-61 over 1950-51	percentage increase in 1965-66 over 1960-61
1	2	3	4	5	6	7	8
diesel engines (stationary)	000 numbers	5.5	10.0	40.0	66.0	627	65
tractors	number	—	—	2000	10000	—	400
electric motors (200 h.p. and below)	000 h.p.	100	272	700	2500(f)	600	257
electric transformers (33 kv and below)	000 kva	179	625	1200	3500	570	192
electric cables (ACSR) conductors	000 tons	1.7	8.7	22.0	44.0	1194	100
4.3 railway locomotives							
steam	number	7	179	295	1175(d)	3214	—
diesel	number	—	—	—	434(d)	—	—
electric	number	—	—	—	232(d)	—	—
4.4 rubber manufactures							
automobile tyres	million numbers	—	0.9	1.35	3.0	—	122
bicycle tyres	million numbers	—	5.8	11.0	31.0	—	182
4.5 chemicals							
nitrogenous fertilisers	000 tons of N	9	79	110	800	1122	627
phosphatic fertilisers	000 tons of P <sub>2</sub> O <sub>5</sub>	9	12	55	400	511	627
sulphuric acid	000 tons	99	164	363	1500	267	313
soda ash	000 tons	45	81	145	450	221	210



## THIRD FIVE YEAR PLAN: SUMMARY

item	unit	1950-51	1955-56	1960-61 estimated	1965-66 targets	percentage increase in 1960-61 over 1950-51	percentage increase in 1965-66 over 1960-61
1	2	3	4	5	6	7	8
glass and glass-ware	000 tons	92	125	225	440	145	96
industrial gases—oxygen	million cft.	—	—	700	1650	—	136
5. village and small industries							
khadi							
traditional	million yards	7.3	28.9	48.0	3500	558	49
ambar	million yards	—	—	26.0	—	—	—
handloom	million yards	742	1471	1900	—	156	—
powerloom	million yards	148(c)	273(c)	375	—	153	—
sericulture	million tons	2.5(h)	3.2(c)	3.6(c)	5.0	44	43
6. transport and communications							
6.1 transport services							
railways: freight carried	million tons	91.5	114.0	154.0	245.0	68	59
roads: surfaced including national highways	000 miles	97.5	122.0	144.0	169.0	48	17
road transport: commercial vehicles on roads	000 numbers	116	166	210	365	81	74
shipping	lakh GRT	3.9	4.8	9.0	10.9	130	21
major ports: handling capacity	million tons	20	25	37	49	85	32
6.2 communications							
post offices	000 numbers	36	55	77	94	114	22
telegraph offices	000 numbers	3.6	5.1	6.5	8.5	81	31
number of telephones	000 numbers	168	280	460	660	174	43



item	unit	1950-51	1955-56	1960-61 estimated	1965-66 targets	percentage increase in 1960-61 over 1950-51	percentage increase in 1965-66 over 1960-61
1	2	3	4	5	6	7	8
<b>8. health</b>							
<b>8-1 institutions</b>							
hospitals and dispensaries	. . . . . 000 numbers	8-6	10-0	12-6	14-6	47	16
hospital beds	. . . . . 000 numbers	113	125	186	240	65	29
primary health units	. . . . . number	—	725	2800	5000	—	79
family planning centres	. . . . . number	—	147	1649	8200	—	397
<b>8-2 personnel</b>							
medical colleges (intake)	. . . . . number	2500	3500	5800	8000	132	38
doctors (k)	. . . . . 000 numbers	56	65	70	81	25	16
nurses (k)	. . . . . 000 numbers	15-0	18-5	27-0	45-0	80	67
auxiliary nurse-midwives and midwives (k)	. . . . . 000 numbers	8-0	12-8	19-9	48-5	149	144
nurse-dais and dais (k)	. . . . . 000 numbers	1-8	6-4	11-5	40-0	539	248
health assistants and sanitary inspectors	. . . . . 000 numbers	3-5	4-0	6-0	19-2	71	220

(k) In practice or in service.

## ANNEXURE II

Outlay during the Second Plan and cost of physical programmes in the Third Plan—estimates by heads

(Rs. lakhs)

head of development	estimated outlay in Second Plan			estimated cost of programmes in Third Plan						
	States	Union Territories	States and Union Territories	Centre	total	States	Union Territories	States and Union Territories	Centre	total
1	2	3	4	5	6	7	8	9	10	11
agricultural production	8367	268	8635	1075	9810	18351	598	18949	3658	22607
minor irrigation	9166	98	9264	230	9494	17269	177	17446	230	17676
soil conservation	1553	8	1561	200	1761	5732	246	5978	1295	7273
animal husbandry	1869	73	1942	200	2142	4592	172	4764	680	5444
dairying and milk supply	958	3	961	244	1205	3086	24	3110	498	3608
forests	1656	122	1778	150	1928	4204	268	4472	667	5139
fisheries	710	26	736	170	906	2090	102	2192	672	2864
warehousing, marketing and storage	310	18	328	170	498	843	10	853	3300	4153
I. agricultural programmes	24589	616	25205	2439	27644	56167	1597	57764	11000	68764
cooperation	3278	55	3333	50	3383	6959	151	7110	900	8010
community development	18744	463	19207	200	19407	28189	578	28767	600	29367
panchayats	460	30	490	1976(a)	2466	2824	56	2880	—	2880
II. community development and cooperation	22482	548	23030	2226	25256	37972	785	38757	1500	40257

(a) Includes expenditure for 'local development works'.

head of development	estimated outlay in Second Plan						estimated cost of programmes in Third Plan					(Rs. lakhs)
	States	Union Territories		Centre	total	States	Union Territories		Centre	total		
		3	4				5	6			7	
1	2	3	4	5	6	7	8	9	10	11		
irrigation . . . . .	34479	21	34500	2717	37217	58121	10	58131	1803	59934	59934	
flood control . . . . .	(b)	(b)	(b)	4800	4800	5995	137	6132	—	6132	6132	
power . . . . .	41882	914	42796	1753	44549	88315	2345	90660	11312	101972(c)	101972(c)	
III. irrigation and power . . . . .	76361	935	77296	9270	86566	152431	2492	154923	13115	168038	168038	
industries and minerals . . . . .	2859	2	2861	87128	89989	7958	32	7990	180240	188230	188230	
village and small industries . . . . .	6949	294	7243	10323	17566	13703	425	14128	12300	26428	26428	
IV. industries and minerals . . . . .	9808	296	10104	97451	107555	21661	457	22118	192540	214658	214658	
railways . . . . .	—	1598	—	86011	86011	—	—	—	94000	94000	94000	
roads . . . . .	14326	—	15924	6440	22364	21830	2575	24405	8000	32405	32405	
road transport . . . . .	1502	91	1593	225	1818	2044	559	2603	—	2603	2603	
tourism . . . . .	144	13	157	60	217	394	22	416	350	766	766	
ports and harbours . . . . .	314	45	359	2980	3339	490	18	508	12500	13008	13008	
shipping . . . . .	—	—	—	5268	5268	—	263(d)	263	5500	5763	5763	
posts and telegraphs . . . . .	—	—	—	5059	5059	—	—	—	7900	7900	7900	
civil aviation . . . . .	—	—	—	4900	4900	—	—	—	5500	5500	5500	
broadcasting . . . . .	—	—	—	468	468	—	—	—	1100	1100	1100	
other transport . . . . .	52	99	151	53	204	273	25	298	1200	1498	1498	
other communications . . . . .	—	—	—	327	327	—	—	—	930	930	930	
V. transport and communi- cations . . . . .	16338	1846	18184	111791	129975	25031	3462	28493	136980	165473	165473	



general education and cultural programmes.	16011	721	16732	4072	20804	31906	2104	34010	7800	41810
technical education	2141	31	2172	2600	4772	6986	173	7159	7000	14159
scientific and technological research.	—	—	—	—	—	—	—	—	7000	7000
health . . . .	13021	566	13587	8047	21634	27114	2566	29680	4500	34180
housing . . . .	6411	266	6677	1356	8033	9620	2076	11696	2500	14196
welfare of backward classes	5080	214	5294	2647	7941	7498	389	7887	3500	11387
social welfare . .	327	10	337	1181	1518	1048	114	1162	1600	2762
labour and labour welfare	769	12	781	1200	1981	2519	189	2708	4400	7108
rehabilitation . .	—	—	—	6341	6341	—	—	—	4000	4000
public cooperation and local works.	—	—	—	—	—	34 (e)	—	34	5000	5034
<b>VI. social service</b>	<b>43760</b>	<b>1820</b>	<b>45580</b>	<b>27444</b>	<b>73024</b>	<b>86725</b>	<b>7611</b>	<b>94336</b>	<b>473000</b>	<b>141636</b>

(b) In the Second Plan, outlay for 'flood control' is shown at the Centre.

(c) Includes part provision for D. V. C. power programme and Bandel thermal station.

(d) For Andaman and Nicobar Islands.

(e) In-addition to this amount, outlay for 'public cooperation' will have to be found within the agreed Third Plan ceiling by suitable adjustment in the following States; Rs. 6 lakhs each in Andhra Pradesh, Bihar, Madras, Madhya Pradesh and West Bengal; Rs. 5 lakhs in Mysore and Rs. 1 lakh in Assam.

head of development	estimated outlay in Second Plan						estimated cost of programmes in Third Plan						(Rs. lakhs)									
	States			Union Territories			Centre			total				States and Union Territories			Centre			total		
	2	3	4	5	6	7	8	9	10	11												
1																						
statistics and research	403	7	410	5086(f)	9980	322	27	349	500	849												
information and publicity.	276	21	297			562	58	620	600	1220												
local bodies	415	44	459			310	65	375	—	375												
State capital projects	3196	—	3196			2475		2475	—	2475												
others	507	25	532			1075	933	2008	4100	6108												
VII, miscellaneous	4797	97	4894	5096(f)	9980	4744	1083	5827	5200	11027												
grand total.	198135	6158	204293	255707	460000	384731(g)	17487	402218	407535(h)	809853(h)												

(f) Includes also anticipated outlay on account of Department of Atomic Energy, schemes of the Ministry of Finance and office and residential buildings under the programmes of Ministry of Works, Housing and Supply.

(g) The distribution of outlays in West Bengal is subject to adjustments : (i) on account of West Bengal's share in the D.V.C. and (ii) increase in resources estimated at Rs. 43 crores, which the State Government expects to raise above the level of Rs. 90 crores shown in Chapter VI—Financial Resources.

(h) This excludes provision of Rs. 200 crores for 'Inventories'.

## ANNEXURE III

## Outlays during the First, Second and Third Plans for States and Union Territories

(Rs. crores)

State/Union Territory	First Plan (actual)	Second Plan (estimated)	Third Plan (programme outlay)
Andhra Pradesh	108	175	305
Assam	28	51	120
Bihar	102	166	337
Gujarat	224(a)	143	235
Jammu and Kashmir	13	25	75
Kerala	44	76	170
Madhya Pradesh	94	145	300
Madras	85	167	290.9
Maharashtra	(b)	207	390
Mysore	94	122	250
Orissa	85	85	160
Punjab	163	148	231.4
Rajasthan	67	99	236
Uttar Pradesh	166	227	497
West Bengal	154	145	250(c)
total—States	1427	1981	3847.3
Andaman and Nicobar Islands	2	3	9.8
Delhi	10	14	81.8
Himachal Pradesh	8	16	27.9
Manipur	2	6	12.9
N.H. and T.A.	—	4	7.1
Tripura	3	9	16.3
Laccadive, Amindivi and Minicoy Islands	—	0.4	1.0
N.E.F.A.	4	5.6	7.1
Pondicherry	1	4	6.9
total—Union Territories	30	62	174.8(d)
total—all India	1457	2043	4022.1

(a) For the composite State of Bombay.

(b) Indicated against Gujarat.

(c) Provisional.

(d) Includes an unallocated amount of Rs. 4 crores.























